300 tacggaaaca gcgcagctct acgcatcacg agtcctagga gtgactgttt gcgctgaccc gcttatcgtt gctttcagag tgcatatgaa ttgcagtgat tattaaccat cacgcctttc accgccttga tcctgactca ttgtggtgtg gatgaagcag catatatgtc tcaggacgag atgittcacc citgiateat acceateeat cigicegita agiacagige ggeeeegitt 480 agtcgataca agtcatccca gcaaaaaata tcgcctatcc gaggttatcg ccaaggtgaa 540 gtttttatta ttatctaagc attactaagc caactatcta aggtgccctg agccctcgct gtaataattt caccctctaa atctcgctct aaccgctcaa gtgatctaag aataggtgct 660 ttagatgcat cctgaccctc catataagag atcagtagtc ttacagcatc aagagcatcc 720 tgaggctttg gaagaggtgc tggctcagct gtatcatcat ctagatcgtc cgaatatata 780 tetgtactee cagaageete agtaattage tgeteaagta ataceteaga ggacateeca 840 ttactagagc tagtaggctc ttgagactcc tctgcagggt taagaaagaa ggagatatcc 900 atacaatctg atagattccc agattgctgt accttctcat atagtggttt tagatcaggt 960 gcttcaactg gaagctgtat aggatctgga accagtgtgc tcttatagaa gcaggcaagg 1020 atagttgagc ttaggacatc atgatgccag gaccgtacaa gccagcgtat gcagtctaga 1080 atcgtcacag attctagtgg atcaaggtcc ctctcatagt gggaaagcat atatcttaac 1140 cactgtttcc gataatatat cttcaggttc tggataatac cctgatcgag aggctggtac 1200 cggcttgttg aattctttgg cagccagcag atgcgtatat taggaggagg tggtgctagc 1260 tctaggccag aaagatgcgc agggaggttg tccattgtaa gaaggattga tcgctggccg 1320 atatgttgat agaactccag gagccattca cgcataataa tttggttcat ccaggcattc 1380 ttgttccatt gccatcgaat tccaattgct gaggtattga tattgcgaag agctcgtggc 1440 ttatgtgcct ttccaattac ccagattggt aatcgatcgg tcccagaggc atcgacacag 1500 catatcatag atatccgaga cttatccttc ctaattccag gcctattaac ggaagatagg 1560 ctctgtgaag gaggcatacg ccagaaaagc ccagtttcat ccatattata gatatcatcc 1620 tcattatact ggccagcaat cgtacgtata gccttcatcc cttcctcagc atcttctagt 1680 actgagccag cttctccgtg gtatgtccgc tgcttgatat tatagcgttg tttgaatcga 1740 tgtagccaac cactactgaa agcaggtggg ggctggtcac gatactgggg tagagaactc 1800 cagatttggc gtgctttttc aataagaatt tcaccactga tatatgcccc tttgcaatca 1860

agtgtatgat gccattcata aaggatagcc tcaaggtctt gccactggcc aatacctttg 1920 cgagttgccg aggaaggatt gcattccgag tcaagataat gatattgtgg gctgaggata 1980 tcagagacag tagactggct caagcgatgg ttataatgag cttgaaacca tgctatacag 2040 gccttttgtg ttggacggcg agactggcta tgaacccagt ctctcaaagc cttccgctgg 2100 acgtcagaaa gccttttcgg tggagccata tgattgggta gaataaggtt tccactagga 2160 tgagcttttc aaatcgacga tatgcttgtc gatatatcgg ggatcggggt tacatagtaa 2220 agcgaggtaa atttatatgg gatggaattc atcccgagat gagatatcgg ctaagcgagt 2280 atcggcttgg cggggccgca ctgtatatgg gccctaaagt gcacacttta tgcgctttct 2340 ttagtcgtta ttgtagccaa acgccacggg tgccagctgt agccgtagga ctctagagca 2400 gactttggat cgcaagagta cttatacaga gattaaatgg tgatattcag ttagttggag 2460 actcacctgg gcaccctgtc gatcagaccc cattggcgcc tcagaaatga ggccataaat 2520 gtaaacaaaa gaatttcagg agatccgcaa ttcgaacgat cgcgaccctc cgcgacggcg 2580 aggccatete aacteteagg gttecaetet acaaaaagaa egaaeteeaa ggcaageete 2640 ccaaacaatt gactcagcct tcgaggcccc atccaccaac atgtccaccg tgacaccccc 2700 ggcgtcgagc ttcaccatcg acaccccgac aatcctttgc atccttttcg ccctctcctt 2760 catgcctatc gcctacgtcc ttggaaacaa tctgatcccc tcctcccaaa cgcgcaaccg 2820 catcetette tactggcacg cetacgatge cetaacteae etetteateg agggetettt 2880 cctttacgaa tgcttcacca gctacgcgac tttgcccgct gggttcgctg cgccagaacc 2940 ggcattcctc ggtatcaagg atagagtcta cggagctgca catggatcag caccatccgc 3000 gaggetetgg caggaatatg egaaggeega taagegetgg gegaeggeag aegetaetgt 3060 aattteettg gaacteetga cagtetteet gggeggteet geagegatet atgtetgtta 3120 tctagtgtgg cagtcgagtt gcacacagcc ggccccaaag ccgacctcgt ctaaatcctc 3180 ttcaccaaaa tcgacgtcca aatcgtctgc cgcgaagctg gaaagccagg gcgcttccaa 3240 agcaaaatta tggcttgtgg ccacggctct cgccacggcg gagctctacg gcgggttcat 3300 gacttttgtg ccggagtggt taaccggctc gacgcagttg gatacgagca atgcagttta 3360 tttgtggttt tacctcttct ttttcaatac gctctgggtt tggattccgc tttgggtgct 3420 ttgggaggcg gctaaagagg ttaaacgggc gtttgtgctt gctgaggggg tggaaggaaa 3480

gaaggtcaaa taatatggtt ttcgggtcgt atattgaatt ttgtgggaat ggtctgttga 3540 tatctactcc gagtatatat gctatgtcca gatcttagtt atattcagtt gccgtagatc 3600 tattgtgtaa tgtacttcgc ttgcagaaaa tcaagc 3636

- <210> 735 <211> 3964 <212> DNA
- <213> Aspergillus nidulans
- <400> 735

ccatataaac tctctttaag ggtcttgatg cccttggcac tttggcatga ttctatttct tgatactett tacctgtata catgtettae aggtetttag etgettaatt acctetttae 120 taggtaagag teetaattte tttattatet atetaaatet ggeettteet ggatgaeeta 180 gatattaata aagcaactcc taattaatct gctttataag tcttgtatat ttattatttt 240 300 taggetteee aaaceettta geeaatgeat tetggetttt taeetateet aggtaaettg tacagccaat attatatcct cttgctagga tctttcctct cctcttgaag aattagtact tettetttae atgettatte cagataeett tatettgeaa taattaggtt aataggagag 420 tctatatcat cctgggcatg tacaatacat tccagatcct agccactttt ctactgctta 480 ataggateet tattgtteet etaceagtaa ttttaataga tttactaget atteecaage 540 tgcctctata tctctgatct agagacttaa ataaattaat cttgctgcta caggtactta 600 ttgctctact attaataata ggattattgc tcccctttaa tctgtatgct ttcttattct tttcaagcaa gtatttaaat taattactga tatgctctct taattcaact tagtaggtat 720 tctcagctgc tcagtaggct gtttatttat atacttgata tatgctatgt ctggtagaac ctttgctgct agtacttgaa tcactatcta tgtctatatc tattttatta tttactgtac aggetagaet tgttaaaece aacecaegga aceegeecea aceegeeceg aceegeeaag 900 aaatgggttg ggttagacct tctaattatc cattgggttt tggatatttt tggctgcccc 960 aaagcccggc ggagcaaccc gctgggttgc caagatatct gaataggtat attactgtat 1020 ttaaattaca ttttcttact tagatagttt ataatacagt atttaaatac agtattttat 1080 taactatgta gatcactgct tattaaagta atgatatgca taactgggtt attttgggtt 1140 atttaggttg ggttagaatt atttgctaaa cccatgggcg gtttactgtt caggtaaccc 1200

accccaaaaa ccgcgtgggc ggatcagcta ggcctgaaaa cccgccccaa cccgtggttt 1260 aacaagtcta acatggacat tgctgaagtg gcattgcaca aagcctatag cctttggtgt 1320 gtattgacaa cccaacgtac ccggaaggcg ttccaggaag ccagcccggt tggacaggtc 1380 caacttatga atggagtatc acaaaatcaa cattatccgg tgtctcgacg ctgtttcccg 1440 ttcaaacggg attgttgcga cttgcaaaga gttctacaga gttgttgcgg gcgatatctg 1500 ctccgacatc gcgcgtgaaa ttgatatcga tctggacaca ttctacgaat agaatccgct 1560 ttcaaaacag accgtgccgg gcctctagag atgcctacgt ctatgtcagt atctcaaggt 1620 gtacccctcc taccacgaca gttaccacga gtggagcagt aataacaaca acagcagcat 1680 ttgaccccga ccccaacaca agcaagcagt atgaaaatcg tggacaataa tatctcgtcc 1740 aggtgggcga tagacgttga agtcttgcaa atgaggggga cgttgtgctg gaggaattct 1800 aagactggaa teeggeggtt gaggacaeee ggaaegegeg gateattgge gtetegtaae 1860 gtggcgtgag gatccagccg cgcgctgcag gcatgacgtt cagctttcaa gagccgggaa 1920 ctggcgaatc ccatactcca aggccttagc atccttgtta aaagaggatt gtttcctctt 1980 gctggtggat aagattgggt taaaattgcc aggagattct caaggacagc ttggcggcgg 2040 cttgctcctc cgcaaggaca agttgcccga catagctccg gtcagagtac gggcacatgt 2100 gtatctacgg gcatgtgtat cttgaggccg tctttgttct tcttacaggt gtcgatgaac 2160 gattggggac attcggtctt ctcgtcaatc cagagatcat ctcgctcgtc aaggatgtgg 2220 aattcactca ccgtggcgtg gatcgacctt gtgtcgtctc agataatttc tttaatatcg 2280 tggcggaatg gcttgctgtg tgtggttgcg cgacgaaagg aacatcgggt gagtttgcag 2340 aaaggaaagc acggtctagg cgaaagcgga cggcattgca gagggtcctg catgtcagat 2400 gcagggtctt gatgccgctg ttggggaggg ccggctatta tttagttaat ttctatgggt 2460 aatteegegg agettegtge cattttaegt atetettttg tegaataatg teaaggatag 2520 gattcaataa gactcatgag acggcgggtc tgggcaagtt tgggtagatt gtatgtaatg 2580 aagtgcacat gggcttaatg tatctactcg ggccaaatag cctatagaga cggatctttg 2640 tcgagttagg catggatcta tatataacaa tattagcata ttttgattaa atcaatattc 2700 tgtatttact ataagtcgga cattaggtgc agtaatttat acaattttat ctctcggtaa 2760

atctctggca ggttgtagct gcttggaccc gatctgagaa gttaaaccaa ggccaggctg 2880 gcaggataga agcaggcgga ctagcggaaa taacttatta ccactgattc cttcttcttt 2940 atcetecate eggattaega ettettgtgg egeacaaaca tgtteetttt caaataeatt 3000 aggcgcggaa cttgccctaa ctacaacacc gtttgatatt gcagcaccat gggctatgca 3060 ctgttgacct aactggccaa cgaacttctt tacatctttt ctagactact tcatgatttc 3120 tggcgatccg attcctggtt ctgtgctcgc catgggcctt ttttacaatg ccactattag 3180 gtccgactta tgctgctcca cgctgccgct actcgactta gctctcacct atgggctagc 3240 catgacgctc gttaattagc gcgtgctatc attctctacg aaagctcctg ttgaggtctc 3300 ageggeeage eegeeeegg gaceegeeg ggetgggeet geeegteaga tggggtattg 3360 ctatccgcag cgccttatga cgcatgctat ctggacttaa cagagccaca agtaaatacg 3420 attccagata cccactacag agggataaac cctgctagat agcagatgat cgaggaagaa 3480 atgcatatca attctaagcc aagctcgatc tcccaacact cgaggctagc atctaggaga 3540 tgcaagatat cgctagagct tgattccagc tgctaatttc cagcaaggcc ctaacgcgga 3600 cgccaacata tctgattggc aatcgttccc gtccgtatag aggacagcgt gtacctgagt 3660 cgacaagcaa tgtagtaggt tcagcacttc tggggttggc aggatgatca gcaggattgt 3720 agetteaatg cagecagaac gtatgettgg egegtetete acetteetgg getagagata 3780 ggttatcaag ggggaagcet ccacggagta agatcacagg gactttcacc atctgggtgt 3840 gtttcggtgg ttcgagcgcg ataaggctca tacggataaa cccttatgga gggctattct 3900 gatagagggc tggactcggc tgttgttgtg gcttgaattg aggtcaaaga agtcagacag 3960 ttta 3964

<210> 736 <211> 4136

<212> DNA

<213> Aspergillus nidulans

<400> 736

gtgataatct catgacatag tcttgcattg tccatgccca atcccaatga acctgtttt 60
tagtattgca gttgacgaaa acaagctggc ttgtggtaaa ttgctggtta ccaaagtagg 120
cactgcaagg ccaaagacaa ttaggggcaa tgttagtaag taaagtaagt aatagaggta 180

gagcaaagaa ggtctcaccc gaagttcccg ccaacaaaag tcagatccgc cagaaagcct ccagatccgt tctccatata gataccttgc tgggtgttgc caggaacatc cgagttatac aacatgtaga actcaatgtt ctccaaggac gttccctgcg ctacttgcca gtggattgcg 360 cacacatagg cagatggatc cgtaggccga atatcaatct tgaagttctt gatgctgcgc 420 aggaagttgt tctggttcaa ataccattgt ccgttgtcgc tcacgtaggg gtcagaggta 480 ataacaccca gtccaacaaa gcttgaggct gctaggatag tgggaacatt caatggctgc aggtgtcagt caatgttctt cgcaattgct taggttgtgt cttacgtctc cgataaactg 600 cgtattatag tactggataa tcggtgagct gacgaggtat ttgccgccgg gaaaccagac 660 gacggcagga tatctcgtac tcgagccgca atctacgcca caccgtcctc catcagagat ggctcggttg atggcctcag tgtcgtctgt gactccgtca ccctttgctc cgtagtcgcg 780 cacgtttctc cagacctatg gaaccgcgtt agtcctattc agtggtggat agttgagggt 840 gattggtttt gcatactttg tacccagcag gggcaaatgg gctatttccg ttcttctcca 900 tgtgtggcat ccagtacttg gaggagatcg cttctggaga ccaggatcac ttgttatccc 960 caaatgaaga ggccgcatta acagtctcag cataggatag aaagtcgtag agaccatttg 1020 aatggacaag ggtttgtgcc ggagtatttg ttgctcgctt ccctctgttg tacttctccc 1080 ggatcatcgc ggctacctca ctctggttcc cgctcggggt gttgtcggtc gattcggcaa 1140 cgatctttgc tgccctggct aattcagctg ggatagagta tgcagtgttc ccacgggtcc 1200 tggctgaagg agcgtcccgt tttcggcggc gcgcattctc tgctgcttga gcagtatatt 1260 ctaaaggagc ggcagccgag gctggtctct gtcaaacgta agcattctat cactctcagg 1320 agaaatttat aatatgaaag ggcttcagag gaatgcatac ttttgactgt cctgggtcct 1380 gtatactgta ctggttgaaa ttgggatttt ccacccgctc tctgttgacg tgcgcaagta 1440 ctgccagagc gttcttgacg atcgtggcgg gttcattaga gtctgtcgta tcattgcggg 1500 accgcttgac atgatcgctg cgatgatcgt gataatggcg atggtgcgga tggctgtggt 1560 eggeetgtge caegtttace aacaagagtt gaaggateaa eagceagate ggeagggete 1620 gaagccctaa ttcgcggatc ccaagcagcc tcatcgtcga cgacgtgaat gtctttgaca 1680 gtctttgacg cagccagcag gtcgggtctc cttgatctta aagaacttag attgcctaaa 1740 gttcactaaa gtggctggga acttgatggg cataaatctc cctctactct atggcctggg 1800

caattactaa gagctacgag tatcgagaac cgagaagcta ttggaattcc ccaagccgga 1860 aaagcggtag ggttccgaca gcacatagcc cacctgctca atctaaaact tcgttttgct 1920 aatatagett tgeeeetgge etcaactett tacagacett tagtetgage taaggtegga 1980 aaaggagcag acggagcata ctaaaaagcg gacactttta gcctatggag cttgcatggg 2040 gttccgatga gctccgggac actattaggt ctagttccac ggccatacgt tctgttttag 2100 gccacattcc tcttggcata gccctaagtc atgccaagaa tgttggctac tgacaggccc 2160 caatgcgcca aaaaaaaagt ctctatagag ctgcctaagg atctgagaca agtgccggta 2220 gctgctatac tgacgatcag gcctatgctg gtaccttttg gttttcaagt tcaataactg 2280 catgataagc gcaggccaac agtcaccagc ctaacatcaa tttgcctgca tacctagata 2340 gcataggcta gtacactcct aggttacgag gacagctagg gctgacgcta ggaaggtggg 2400 cgtataagcc tagcgcttta catctctgat gtaacgtctt gacagctttc ctaaacgtaa 2460 teacegttta caeatttaat ttggaatgtt taetaetagt aatgaegeee eteatgetee 2520 gcttgccctc tatgtaccaa tgagtcttag ccgacacgag atcggtaagg taggaaagca 2580 gcaatggcgc catctgctag tttgcacgtc tcggagcctc gctacctagg tgtagctgag 2640 acatgcacca atctgttact ggaggcgagg aggtatccca gattagtact tttgtcctag 2700 cgcaaaggag gaccaccgca gcacggtaaa ccaaattaaa ttgctcactt tgtcgaggaa 2760 gagaagaggc tgatagactg ggtctcgaaa cagccgaggg acttaaagag ggcgtactgg 2820 aaatcaagcg aagtgagaaa ttgaaaagaa agcaaagcac ttcatcctca gcttgttaaa 2880 gtagatgagt ctggaaacca tgcgccggct caggcttcca gcactctcgt tctgtgtgct 2940 tgttattctc tgtttgttct ctctggcagc ccacgctcag gactgcagtg cactcagccc 3000 atgtgccacc ggttgttgca acaaatttgg ctattgcgga gtgggcgacg actattgtgg 3060 tactgattgt gtcgccaatt gcgattaccg ctctgagtgc gatgcttcca gaccttgtgc 3120 aacaggttgt tgcagcaaat atggaaactg tggcctaggg cccgactgta tgtatctcac 3180 catctcgccc tcacgcaagg aacaacctaa ccgaggtcaa atagtctgtg cggaagatgt 3240 atgegttgee ggetgegata geagagetga gtgtgateeg ggtgaetaeg gagaetatge 3300 ggatagccct aagtgccctc taaacgtctg ttgctccaaa ttcgggtttt gcgggacaac 3360 aaaagaatte tgeggeaeca agaaagteae tegteetteg tgeteeaagt caaatggeet 3420

tgaacgtgta gtgggctatt atgagggttg gagcatgaac agaccttgca atgcattcta 3480 cccggaacag attcccattg gagtctatac acacctaaac tatgcttttg cctccattga 3540 tccggagacc tttgaagtgc ttgtccctag cgtttacgaa aaggatctca tgcagcgtct 3600 gacgttactg aaaaagtcag atcctgattt gaaggtcttc gtggcggttg gcggctggtc 3660 gtttaatgac cctggcccta ctgccacagt gttttcggat attgcaggct cggaagccaa 3720 ccaaaagaaa ttcttcagat cattggtcag cttcttgtca acatacgact ttgatggcat 3780 tgacctggat tgggaatacc ctgttgccga cgatcgaagt ggccgtgaag aggactataa 3840 gaatttccca tcctttatcg ccaatcttaa aaaggcgttg aaagcttcgg gtggtcgaga 3900 tggactcagc attacgctac cagcttcgta ctggtacctg cagcactttg atattgtcaa 3960 gctacagaag agcgtggat tcttcaatat catgtcttat gacctccacg gagcttggga 4020 tagcaacagc aagtggctgg agccccagct gaacgcccac accaatttga cagaaatcac 4080 aaacgccctg gacctgttgg gagaaatgat atcagccca ataaggtggt cgtgtt 4136

<210> 737 <211> 3828 <212> DNA

<213> Aspergillus nidulans

<400> 737

taactggatc cctcgaacag accatctcat ccggataact ggaaacatcc actgaatgca 60 gagectgtag tgacagaact etttgacgca ggtetaatea egeetaaetg getteaetae 120 gtgcgcagcc acggctcggt ccctcatctg ctctgggaga accacagact ggagatatcg 180 gtgggcgaga acatgaccct attaatggat gatttgaaag accagttcga gagtatcaat 240 300 atccccgtct tcgttgcgtg cgacggtaat aggcgcaaag agctgaatat gatcaagcgg 360 agtaagggat tcaactgggg ccctggcgct gtagggtgtg cttactggag aggcgtgcgg ctgcgagatg tcctgaaacg agcgggcatc aaagcgttga tgaacgagta cagtgaatcg 420 480 cgtctctggg tgaacttcca gggcgccgag acgctgagcg agggcaagta tgagacctgt ctcccgctag agtatgtgat ggacaagaca cacgacgtgc tgctggcgta tgagatgaac 540 gacttttctc ttcccccgga tcatgggtat ccgcttcgcc tggtggtccc aggttacgtt 600 gggggtagat gggtgaaatg gctggaaaag atctgggtca cagataaaga gaatgacagc 660

cactattatt atatgggaca atcgagtcgt accggagttt gtaacggata aggagtcaga 720 gctggcggag acggtgtatc gcaatccaag tacagcgtgt atggaacagg tgctgaactc tattctggtc agaccgggcc ctaaagagaa gatcgacctt gtcaacgtga agaagggcaa 840 gaagtaccga attcaaggat tcgcatacaa cggcggaggc aacgagatac agagggtcga 900 gatcagtctc gatgaagggg tctcttggct atactgcgct cgacgggtaa ggtacctcct 960 tgcacaagga agaggaatag ctgacagaag tagtaccccg aacatccgct gcgacatggg 1020 aagaaattet ggacatgget acaetggeat egagatgtga gaattacaga tttaetgege 1080 gcgaacagca tcagggtgcg ttgctgggat gtgaacaaaa atgcgcaacc ggagcacccg 1140 acttggaacc tcgaagggta agtcaagaag catgggattt gatattgtcg gcatctaata 1200 gaaggcagga tgatgaacaa ctgtcactac actgtcaagt cagatattgt ggaagatgaa 1260 gaatctggca ggatatccat aattttccga catccgtgcg aacctgctac aggcgaagga 1320 ggatggatga agccgtccgc tcaaatccag gcagaagaaa ttcagagaca agcatcgacc 1380 ccagggaagc agttcactcg cgaggagatt gaaaaacata gcactgagga cgattgctgg 1440 atcgtcatca acgggaatgt atacgacgct acgggtgtta tgagctggca tcccgggggt 1500 aaggcaccaa ttatggcaca cgccggccgg gtccatcaag acacgacgaa cgagtttgag 1560 agtatacacg atgactttgc aaattctaaa ctcaaaggtg atacggaccg cgaaaagttc 1620 taatctggtt gactgacgat ctgcagagtg catcctagga acagtgacga agaaagcaaa 1680 agacttcatg caacaagagg tcaaagtgaa ggctaaagag cgagcaagct catccaagca 1740 ggagggtcag atagctttga agcgccataa gtaagtttca tgcatatgcc actataacat 1800 gcttctgaca actgtagatg gacccaagcg cgattcgtcc gcaaaacacc cttatctgga 1860 gacacgaacc gatatacgtt tgagctgctt gaaaggacca agaaactcgg tctccaaacg 1920 ggccagcaca ttcagatagg gttccatttc aaagatcagc ttgtcttccg ctcctataca 1980 cccgttaaac cgatcatgga ggaagaagaa gacgggacct tcgatctcat tgtgaaaaca 2040 tactatcccg accccggaca gcccggtggc acgatgagta acatccttga ctgtctggcg 2100 gaaggagaag aggtcgagat caagggcccc gcaggtgaaa ttgtgtacaa gggtaacggg 2160 acgttcaaga tcgaccacaa ggagcgtact tttgagcgga tcacgcttgt tctgggaggg 2220 tctggagtta caccggggta ccaggtcatt gcaaagatcc tgttatctga tggaagggat 2280

aagaccaaga teegtgttat tgatgggaac aggacggaga acgatataet aettegeaag 2340 gagttgcagg atttcgcgaa ggagcatccg gagcagttcc agattgttca tgttctgagt 2400 catgctggag atgactggaa gggcgagagg ggacacgtca gtgcagaaat tctccataag 2460 ttcgggtttg aacccgacga gaagagtgtt gcgttgctgt gtggcccgcc agcgatgata 2520 caaaaggcag tactccccgc actggtcgac tggggatacg atcaggacag caatctttt 2580 ggattctaat aacctttaat gaggaaatga gacaatgaag cacatgggta gcatcataca 2640 tttatcgtcc tacaaggggc tgggtatagc cacggagttg cttctggctc caaccgcgat 2700 cgacatattg ctctgaattc tctgcttata aactcgagaa gactctgtaa tcacaccact 2760 accgcaccgg gatatgcaca tcaacataac ggacagacaa gtacgcaatt tgcagaaaag 2820 caatcgatgg ggaggtgtac ttgattcgct attgttggct gggtttaggt cctacacaat 2880 gataggttac aactctgatc agtaacggaa agtgatagca ctgacgctgt tttcattgtt 2940 aggcaggttt aatattgccc agatacette aagcagcate tetetgeetg accegegttg 3000 ttgcttcgaa agggcgagct ggttgactca ggtgattcgc tagccctcaa gttggattta 3060 tcacccccg tctatattca ccctacaccc atgttaaccc ctatttgtgc caataacatt 3120 gtcttagcaa cttcaccaag caatagttgc ttgtttccaa tgggcggttc gctgcccagg 3180 caagctgctt caagtcgcgt gggtgggtta gctaaggcta aaaacccgct cccaccaggg 3240 gtaacaggtc tagctgtttt ccattatgtt tcgattgatt tctggacctc catagtttga 3300 cccgccacgt cactaaagga tatctaggcg tacagaaatc ccatgaatgt tgtcagtcgc 3360 ccctttatgg tttgtcgtca gaggcctcaa ggatcgggta tagaaatggc agtccggggt 3420 atteteagte attgtgeett atteetaagt egggetagge agagaataag gaggeatttg 3480 agaaagctga agctataggc gacttatagt ttatgctgat ggcgagttgg tcgatacgcg 3540 gtttggctct acttcgagat ctactatcag acaagatccc tattctgcca.acgaacgagg 3600 actgcccagg tttaactact tgtatgggcg gttaacacag aactagtctt gccatatcct 3660 cacatggcct ggaagctctt tgttactaga agatttgtcg accaactcat gaactgcaca 3720 tataaagagc tettateaga tgtacatgge aattaatggg ggeeagtaat ttgtattgga 3780 gtacttgaaa tgcaactgca aagctcaagt gccctaccgt ggccaata 3828

<210> 738 <211> 5607 <212> DNA <213> Aspergillus nidulans

<400> 738

gatcattagt cggtggagga gcattagtga gctgtggcag agcatgacca ggaggataaa 60 cgccagggcc ggcaagacca ggcttcggcg accgcacacc gagcggacgg gcgccatcag gcaatcctcg tcctggttct tgacgagggc tgggttgctg gattgcacca gggcgaggtc cctcgcgggg atcatagccg tttgcgcccg gcgcctgagc ctgagtccga aggtcgttga 240 tgttacggtt ccaggcgtca atctgctggg gaggagcagg agcctgggca ggtggtcctc 300 ctgtgggagc aggagctccc cactgaggtg caggggggc accaacgcca ggagcctggt aagcctgggg atggacgtcc tgaggctgcg gggcgggacc attgctctgg ccggaacctg acagctggct ctggagaagc tgcaggcggg ccttgatatg aacattggta ggatccaggt 480 cagccgcacg accgtacgca tcgagcgcat cagcgatctg gttgttgcaa gactcataaa 540 gagttcccag atcgtaccac acctccgaga tgtacggatt caggcgaata gcacgcgagt 600 acgcatccaa cgcatcacgg tattgattga tctggtagta cagcacca atcgagcacc 660 agaaagttgg gttgcggccg tcgcgataga ccgcctgctg atacgcttcg tacgccttgg 720 ggtatttggc ttgcgacatg taacagcggc ccagaaggta ccaactctgg gcatcggagt 780 tatctgcgct gactgacttc tcaaggtatt cgatagcttt ttgttggctc tcgaagctac cgctttgctg gtgatacaac catccaagct gctgcaacac ttttgcgtgg ttgggatcac 900 ggtcgagtac gcgcctatac gcttgttgcg cagcttcgaa ctataatgct gtcagcagat agaacaacct tatttgaaat attgcaccta catctttctg ctgctcatgc acgtgaccaa 1020 tctggaacca aatgtcttcc tcagttaagg ggcgcggagg atcattgacg atgtatttaa 1080 agcactagac tegteagtaa tagetegaae geageagtag tegtgeaett aegteeagae 1140 tctggttaaa tttctgctgc tgcttgtaga ttatacccaa ccggaagtag atctcgttag 1200 ccttttcgaa gtcgggggcc atccgcatga cttgagagaa agcttcttcg gcgtggtcga 1260 gagagccata teggteataa aggataeega tteeataeea eaggttatgt teetataegt 1320 ctgttaggct tgatcgacag tcaaaacatt gacgaaacta accttaggat cccgcaagtg 1380 gtaaagcgct tgttggtaag atgtgtatgc ttcttgcaaa ttgtccatca taaggtagca 1440

gtgacctaga agggcaggtt agccgtttcc cgcggacatc gctgcttctc caaacatacc 1500 tagacttccc catgtttctc cgctaccggg atccagctta agaatattct gaaggtattc 1560 gatageettg ggaaactget etettgtteg aaggatgeag gagategeat teatageagg 1620 aacagaccat tgattatgcc gtaaagcttg ttcatacgcg ttcatagcgc catccagatc 1680 gcccatcagc tcagtcaagt tgcctataaa acctagtcag tatgcgaaag tttgcgctgg 1740 gcgcgttata acatagcatc acgtacctat ttgcagccag acctgctcat tcaatgccgc 1800 gattttctgg gcagtactga gcggaggctt ctgcgccggc gactgcatag gcagatggcc 1860 gttcactggg tgggcggcag gtggccatgg tggggagtga cgccgccagt aggcgacggt 1920 gatgatageg attaactttg egacacaatg atgeaaceaa teecegtgte acetetatgt 2040 gtcgcacagc cccggtatag atggtcgcgc aagctggtga cccaatgacc ttgtggttaa 2100 gtcgcaacgt tcgttccgga acaaatattc ccccaacgtc ggcctggcag cacgtaagga 2160 ggcaggccgg ttgaagtggt agatggcgtg tccgatcacc tagttcttgg caaacaggtg 2220 ggtaagagta agaaggatat atagacacaa gacaataata aagaagagaa tgaagaagaa 2280 cgaagcctaa agatgatggg ccaaaggatg aatgcggaaa gggcagaata cagaggttgg 2340 gagagcgggc gaatagaggc caaatggcaa tgaagggggt gctggagaag ggtaggaaga 2400 caaaagaatt gaagtaggaa ggcaatgtga gcgaagaggg gatatctgag aatactggca 2460 aggcacaagg caagggtgtc caaaaggaac agagagtagc gccaaaagga ggagagaga 2520 gaagaagaag aagagaagaa gagcgggaga ggatgggagg aaaggtcgag gggctgacga 2580 ctacttccaa actccaaaag cacaccaaag acacaagacc ccacccacta cggtcgatgt 2640 ctgatctctc aggcaccaaa tcgagaacag aaaaagcagc ttaatgtgga caatagtgga 2700 cactggtcgg caatccagga acagtctagc tggtggggcc gtcatatccg cggttagtga 2760 agcctgactg gcgcaattct ccggtgcggc ggtctgagca gttgtcttca gatatacgaa 2820 gcgtcttacg gggacatgcc accatactac tatccaggca attatggtca aagttcaata 2880 atgtacgggg cgctcagtaa gattctcgat aagcgagtat ggagatatgc atccagctgg 2940 attecteagat tigtaeggeg taegeegeet egegiggaea ecceatieet etecatieet 3000 tttctggaag gacaactttt cagtctggag atggtgctag cctgaactgc ggtttgttgg 3060

catcagcett getaaataca tgaatgeata gatcegteta taaggatgga gtatgeggee 3120 gaatatacga ggcttcaaaa ttaggggccg aaaattacca gaaagaggtc gaaataaaaa 3180 agcattccgg ggtcgttgtt cagatcagta gtgcaggcgc tagtacgcca aagatagcag 3240 agtgctagca agtgattcgt gatactttga gcacagttgc aatgccagcc gcccaggaat 3300 cggatccttc gggacatatg actaataagg gcaagataaa aaggacagaa gggccctgtt 3360 gagttagaaa gaagaaggtc gatcgcatgg agtcaaaaca gggcaaaaaa ggctgacgac 3420 tegaagegee aaegaeggee accaeceagg gatgeecage aegaaceeee agttgeggge 3480 tgtgactcgc cgacagctgc tgcatgtgga taagacccgc ccggcccacc tttccccgtg 3540 ccattttatt taggcaattt attaaaatta.aattaaatgg ttctagcgca aataataata 3600 atcccaagtg ggcatgtggg cccttgggct gcgcacatcc ctgactggtg taactccgga 3660 gcatgeccag agecegggge cataagetea geetgetaag gteggtaage teeeggeaac 3720 ctcctacata agtggcctgc ttaaggacag ggaaaccggc atgaggcgtt tctcacggtc 3780 tcacctctta tccgctcata catacatgcc gtaacgcagc cccgcctgaa aaagctagtc 3840 gctgcaggtg gcatcaaggt tcccacacga ccttgcaaac cgaggaatcg aaagttgagc 3900 ccggcatatt caacgcactt gctgagtcgt gactccacca ctccagtctc cagtcccac 3960 gcctggatgg ggccggccct tctgcagtca cactcacacc tggccgacct ggccgactca 4020 caggcgctgt tgacggaatg agctaaaggg cccacaaaaa gcaatttgtc ggattgatca 4080 ccctgcccct aataataatc atcatcatca tcctcccaac cagtcttagc agtataagca 4140 gtaagcattg acagacggga tcatcagact gattcccccc ttcagcagat gctgcaggga 4200 agcgcctgag caggttcaac gatgtcaatc cgacgtccgt caaacaataa tgctgcatat 4260 ttccggccat gttcagccga caatcttatg cgttgtctcg cagatgcact atcaccatga 4320 taatgttatc attttttgtt ttttctgtcg tcgctgtaga tcgggaccaa gtggataatt 4380 atgtgggtag tetttagate aggagaaaeg getgagagtg geatgeaaeg tteaatttet 4440 ggatctggga gatctgttcc gtcatggcgg catcatgaat tagagtcatt attactctcg 4500 tctctgggta tccaggccga tggtcggtgc gccagtggct tagataaccc tacgctaggc 4560 tegatgeage geceetigge etgegeggae etagettagg atettggetg ceteaggett 4620 gcagcccgtc cgccacagct ttaaggcgac ggactttttg accggtgggc ccgttccgaa 4680

tgctgtgctc caggctgatc ttgatacatc gcctcaagtg gagtcgtgcg atcgctcagt 4740 tggtttetgt ceageaceet tgetgetgae tgeaceacee tttggtggge attgaaggga 4800 tacagcacgt agagttaatg gtagacaatc gacaatccat agtcaggtgt ataataataa 4860 tgaagggtaa ttttatttta tttttctttt tcttttctt tttcttttc ttgaaataat 4920 atacgccaaa aaccccatag tgcagggctg atgtggatgt ggcgccctat tatgggagca 4980 aactcgtcca ccccatcccg cccttatcct cgggcccgag gaacggccgt tggtttgatt 5040 tgagagttga gactcaagtt ggcgtttgcc gcatcacttt aagagagacc ttgaatgcgc 5100 cagtgctaat ataatatttg tgacggctgt cgctaggttt tatctattct aggtgacggg 5160 cgcaataaga tggacactcg ttcatcgttc acagattagt catcgtacac tactcaactt 5220 atcaacttca attcacatat atatcctatc caggtaaatt caatgtgaat aagccgtctc 5280 cctaaatctc agccttcctt ctaacacgtc gttacgcagg tatccagtgt gagatccagt 5340 tcaagatcag agatctgggc cacaaaactc cgccactctt tttgagaggc gcacgaaaag 5400 tgaagccagt tagccacatc atacgctatt gctccaattc agatacctag agtagatact 5460 ccgtatattt accggcactc cgtatgcacc attccctagg tatggctggc actaaaatta 5520 atagccgacc ccgcattgtc gtatctgagc cccgggtcaa cgaattgcaa ccggccagaa 5580 5607 agcagcgctt gtctttagcc ataaact

<210> 739 <211> 3705 <212> DNA

<213> Aspergillus nidulans

<400> 739

taaattgatg tegeaatteg etggataegt ttgetatgeg etacaggege aacagggeca 60
gaaccagcag cageecaaag agaagaaagg ttteataaag gtgacgaegg tgaaaatget 120
tgegeagget ttggetgagg eagaetteet tteecaagea ggeaggatgg aaataetgeg 180
gaaaatgtte agtteggete gteacgttga eateegeagg gaaategtta atgegetett 240
gaatettgte ggeagetgeg agaateetga geeatacaag gtetttgeat egategttge 300
eteagtegea ggeecaaatg agegegetge eaceaecgaa gtegaatggg agatggegga 360
aaaceetgaa egaggggee egetaeecta tgtegeacea eteaetgage gteeggtttt 420

tgaactcggc gttttccgct gccttttgga gtatcccgga gaagttacgg ccagaatacg tagagaatgt actgctgcct ctgttgcagg aatcctcacg tcagcacacg agatggatag ctgcgatggc cgctagactg ggactctcgc tttcggacct aaacatcacg gaggacgata 600 ttggaccttt cattccagat ctcacaaata agattctttg gcgatgggca gagtatctcc 660 720 cagagtcatt tctacaacag ttccaccgtc cctgggcgtt gagctacctc cactacgaat ccttcgctcg cattgacagc gcgctcgcag taacggccga agcgcctctc aaggatagta 780 acgttcgaga tcactgggaa aatttctttg catccttgtg cggtcgtcct gccctctaca 840 gcctagagaa gctcctttcc ccattcgtca acggggtctc aaaagcaccg aatgggttga 900 acactgcgct gattettgaa gagtttgagt tetgegeega gettgttatt egaaateeag 960 tcaagtacaa ccggtttttt aagaagtaca ttctgcaccc ggaatataca ctagaaccat 1020 teegagetet eagggagage egeettaaat eegtttetga egttaaggat tetgeggata 1080 aggegeggat ctaccaegat etgacagaeg etatggeteg aeteateagt gtttgtgaga 1140 ccgttcgcag ggaaggctgg tcagcagcgg cctatccagt gacactcccc tcccagttcg 1200 aataccatgt cctactactc ccttctccta tctacaaccc atctgcctca gaaactcact 1260 ctgcagcgga gatattcaca tctgcactcg ttgacctgat catcaagtac tccgccgatc 1320 cgaccttgct gctgaagctc gactcgttcc agtcggtcct gcgggagatt ccttccgcag 1380 acctgaaggc ttgcatgcta cgtcttggat gcgtatggcg cgagctcgag aaacatgatc 1440 ccatcgttat atgtatccgg gtaaagctgg cgctctcatt actggatatc atgcgctccg 1500 acaagggctt cttcaagcgg gacgtggata tactggggat gatagaggag tggaagaaga 1560 gtgacgttga gtttgtacgg cagatcggct gggaagttga actattatga acctgcttat 1620 ttccaagcat atttcaagtg tcagatgccg gactagtcta aatagcttgc tatttgctgt 1680 acagtttgaa agaccgctgc acattgaatt aaatgtctgc tgcgaagtac agccctaatc 1740 geggetgeea acetgetaac aatgggeett tegeaetttt atattgaaaa taggttetag 1800 tectecting caatitigita tagiettitig agacagatige taacgaetiga agiigtietea 1860 gagteteaaa ggtatatatg egataceaea gtegtaagga caaggtgatt tggegaatta 1920 tccactggca gaggtccatg tctgcgttga gggcacatat ttctgtaccc ctagttatga 1980 ctctgctgcc agcagataga acctcccaga cattcctcag agaccccgtt cactggagga 2040

cccaatcaaa agagaagatt atcagttatt atagcgagac gccacaggtc atggaaattg 2100 acctccatca cacattaagt agaacagtgg caacgaataa taaacccggt gcggcagata 2160 cagaacgaag atgacagtac gactaacagt caggtggcga gaccggtagc ggccacgcag 2220 aaagtagtat ggtagtgcga ggagccaggc aggcaaaggc tgtgcaggca agagaatgtt 2280 ggctgcagtg atacttgagt ctcgatgaag ataactagcc ccagctcggt gatagtggag 2340 aggattatca ttttttttga ctctatcaag tgtatatacg caaatccagt gtcatggcac 2400 ggtatcattg ccaccaccgc agtctaggga gacgaacttc aatccgtcca acatctgtgt 2460 ctagtcagca ttgtctatgc tttcgagacg acgacgagag taacacacgc atgatatgac 2520 gatatgaaag taaccctgct tcagccaggg gctgctccga ttgatgcccc atatgctata 2580 gtggctcaga cgtcggaagg cagtcagggc gtcttgtaga gtcttccgct ggaatccaga 2640 ctgacgtatg agtgcggcgg cggcaacact gaatgacggc tctattaatg gctagccaac 2700 gtctaatgga ggtaattcta ttagtctttg gattataaac atgcattcac agcgaccgtt 2760 cettgegtte ceagteacag cetaceggea getacgagte ttettegeea tactecettt 2820 ccacggattt ctctctattc tcaacctcat ctgttctccg accccagaaa taactcttca 2880 tggtataaag cacactgata caaagteeta aaccacecag eecaategea aaatacagtg 2940 ctgagcggta ccctttcaac cgctcttcgg gtgagtcacc atgcacaatc tggctctcga 3000 tcgtaccggc gaatccaagg ctgagagaaa tactgtagtt gacaatcgtt gtgaccaggc 3060 tcgccgcaag accctggtgc tcgcgcgcaa cggcgttgct gagcatcaac gtggcagcgg 3120 ggaaggacat gtccatgccc caggggatga taataaggga aacaaacgta agagcccagt 3180 acgtttggtg caccggtgca atggtgatga ggatcgttcc gagggtaaat gcggttaacg 3240 acatgcacat aatcaatggt gggcgaatgc gggacatgag aaaccccgtc gcaaaggagg 3300 cgagaagccc tgaaatacca ggcgggatga actgtgctga ggcaaggagg ggcgttgcgc 3360 cgcgggagtc gaggaggaag cgccaggagt agtaaatcca ggtaccgaaa cagccccagc 3420 ctgttgcgac gcagccgagt acgaaggaaa cgtctgtgga gaaggcgtgg aaagggatta 3480 gtgggtgctt tgcgtacttg aattcgacaa caaagaaggc agctatgaag agggcgccca 3540 ggatgagcag gatgatcacg tagggctcgg cccatgagac ggcaggcgct tggttccatg 3600 cgatgttgac gagaactaga ccggtgatgc cggtgaacgc gccgggaatg tcgagcgcaa 3660

<210>	740
<211>	2103
<212>	DNA
<213>	Aspergillus nidulans
<223>	unsure at all n locations
<400>	740

atctgtggct gttggctgat cttgagagtg gcgaggaatt tgtgaccgag gctggcacta tgaatctttt tgtagtctgg gtgagttctt ccacggggaa gaaagaactg gtgacgccgc cactggatgg gacgatectg cetggggtga etegaatgte aatettggag etegegaggg 180 agaggcttga aggggacagg tctggtattg aggtggtaga gaggaggatc accatgcgag agttggcggc tgcctcgaag gagggccgcc tgttggaggt gtttggtgca gggacggcgg 300 360 tggtggtgtc gccggtgagg tcgattcgtt ggggagacca gtgtatttcc tgcggtctac gagatggaga agaagctggc ccgatgagtc tgcagatgaa aacgtggctt gaggaggtgc 420 agtatggcct ggttgagcat ccttggaggt gagtttcttc cattacaacg cagtgagagg 480 caatgaaaga gagaaataat taacgatttc tagttatcgt gtataatcag tcataacagc 540 aatagatatg acaaatgctc ttatatatga gacttgtatt tgcatggact gttgtggttc 600 ctctaccttg taggaactac acatatatat gttaatagaa gtgaatccac cgactctcta 660 gtctcacctc ttattaaaaa caataacatc taaaccaaat gacaagaaag gagaataaaa 720 780 gatagtaggg tcaaaaaaaa gaaaaaaaga aaaaaaggaa acctaatgta accccctcgc cgccaaccca gtcaaatgcc tectegtate cetecteece aageeeccat egeeeceate cccatcgccc tcgcctgtcc aatccccacc actatacctt ttactttctc tcctctctgc actatgatee egacteegae teettgteet egggaegget ettggaataa tteeteegaa 960 cagetgattg accaeattee aatgetegeg gattgegetg actgtetetg gtteeteett 1020 ctcactaatg agtcccctgc gtccacgcag ctcttcttcg gcgcgctctt tctcgaccct 1080 ttcacgtctc cgagcttcgg cttccgcacg ctcttgacgc tcgtattctt cccagccgcg 1140 cgaggacttg tacagctcgc ggaagactga tggacgcgac agcagggtcc gcggtgggtc 1200 getetegage caggatgeeg ttatecataa egageaegeg gtegtaatea atgategtgt 1260

ccagccggtg cgtcacagtg agcacagtgt gttgggcgaa gcagctgcgg atgagctcct 1320 gcatcatttc gtcggtttcg gggtcgactc tatttttcgt taggatttca tcgagggact 1380 aatgaaagga cggaaggaag gaaaggatat acgcacccgc tcgtcgcctc atcgaaaaca 1440 ataatattcc catgccgcag catggccttt gccatgcaga gcaactgctt ctgaccatgc 1500 gagaacagtt cagggctggc tatcgtctcc agcccatcct tgctctcgag gatctcccac 1560 agacccacgc gcttcagggt gttgatgacc gcctcgtcgg ggcagtaggc gaatggatcg 1620 acgttctcgc ggattgtgct tccttcaagt aggaggggt cttgcgtgtt acccgtgata 1680 ggggttcggc ttgattgtca cctgcaaaag acgaaagana gttctttaca tatattgtcc 1740 cttataaatt ttattcttat tatatatcac gtcacatatc ttttttttcc taacccttca 1800 tttcttctta attctttctt taatttaggt tgtttttgta tattttgcct ttctttggat 1860 ctttatcctg tattttcacg tgttttctat gttttccaat ataagtatcg ttaatccttg 1920 actgtacacc tatcaatttt tgtaatttgt gtttattgtt gttttctttc tnnttttgtg 1980 gttnaaattn ttttttnnnn acatttnntt ttattaattt tagggcgggc gctcctccgn 2040 ntncagatta tnntnttatg gtatcagttt tttatcttca ttatctttat ttttttatt 2100 2103 tat

<210> 741 <211> 6713

<212> DNA

<213> Aspergillus nidulans

<223> unsure at all n locations

<400> 741

gatatttata gttcgctacc ccgcttccat cgccaggttg ggtgtcattt gagtttccta 540 cataatactg aataaagggt atgtactgca gtgtcagcaa gtgatccatg atacatcata 600 ttgtagctat gtagctggct cggctggggc tagatccacg gcggccacaa atgcctgcct 660 aagttacgtt tgcagttgat atttgccttg ggagtactaa tgctctgcag gtttatcagg 720 agtttgctta gcactgcaag gagcaagaat gcccaactga tgcggaatgt ccctttaggt actgatacta aggtatgctc cccccagctg catctcccat ggcgtctccc acctgctggc 840 gccagatcat gccatacttt ctttagccta cgacagacca acatgatttt ataagccgaa tettgeatgt accaettact giteaceaat tietteaaat egiceeaati teetgeietg 960 ctccgcaata actgggtgtt agatcggtaa agcaatccca caatctcccc ctttcccaac 1020 tgacaatgaa taggcaataa tgtcctcagg gtcccagtgc atcttgtgta catgtataat 1080 ttaggtcaga ttcttatctc tagtagggaa gcatagtgat taaagccgta gtgcaagaat 1140 tacgatagct acgccatatg aaatatatat tcctgagccg ggatagcggg acacgtcacc 1200 cagcaaatga ttacatctct cacaatggat atacccatac ccggccgatt ggcttggatt 1260 tgagtttcta ttgttcaaaa accaaagtat ctgcaagtca atgaattatg ccagacattt 1320 tgaaaatgtt atgaaggcaa atagataaac tttatttcaa taagcagcat cattggtcta 1380 gtggtagaat tcatcgttgc catcgatgag gcccgtgttc gattcacgga tgatgcattt 1440 tttatttatc tatttttta cggagttccc tctgtattac ggagttccct ctgtaattcc 1500 agtatttcta ctgacttagg ttacatatat tttaactctc cggatacggc taagagtatg 1560 agtatgagcg tgtgagctgt acattgatcg gggtatctag catgtaaaga atctctatat 1620 aaaaccaact ctcgacctcc agagaaaaga atcaccttct cacaccggca aaccgactct 1680 tecaecetet teteceaage eegagegttt etagegtete egeettgeet eeceaaaget 1740 tegecetece ateaetgete tittetetgeg teggegggat ceagaaatge gteaeegeeg 1800 ccccaataac catacacgca ctaaacacga tcaacatata cccatggcgg accgtctgct 1860 cattgccggg ccccgtgccg aatttataat acgccgagag cagctgaatc aatatcgagc 1920 cgagctttcc cgcgcccgcg ctgatcccgt ggcacgttgc gcggtatcgt gttgggaaga 1980 tctcagcagg gatcatgtaa gttgtcgtgt tgggcccgaa attgaacaag atctgcccga 2040 taatgtagag cgtcaccgcg acggggccct ccttgtgcac ggtgatgaac atggttccaa 2100

gegegataaa gtgggetget agegetagaa ageegtattt etgeagegag aegegttega 2160 gtttgtggat agtcagcagc atcaggaccc cgccgacgaa actgccaata ttgaggatga 2220 tcaggcagtg gatgctcgtg tcgcggaaca tgtcgtatat atcagttgcg ccggtgtcgt 2280 ctgtcatcca gggcggggcg ggaccggaga gtttgagact gtcccaggtc ttcgcgagaa 2340 actggggcga ggagagacct ataccgtaga agccaaaatc gaggagcagc caggagagcg 2400 acgtggcgag cagggtgcgc cagttgccct catgccagaa gtattgcgtt atgtcgacct 2460 tggtgaggcg ccagtggctg ttgagcgttg ccggggtgag gaacgtgcct tcagggaggc 2520 tatcgtggta ctgggaaggg gtccggtctg tgaagtcgtc aatggacatg gagcgaatcg 2580 ttagggctcc agcaccggtg ccggatgtgt cgggaccggc agctgtactc gtgcccttgc 2640 ccgtgcccat cgttgtggct gttgcgggga gcgcaggagc agcaagtatg atttcattcc 2700 atggggcaat gaggttgata tegttgaatt ggttegeegt ggeagtagte atactagtga 2760 gagcagtega egeegaaceg ggatacegat ateceteete aaeggeaate tetggegace 2820 cgaggetega cagaggegee gggtegetga acagtgtegt ggeategaae teggeetgea 2880 ccggatcgtc ttcgatttcc agcagaaagc gcggactctc ggggataaaag aagcgaaaga 2940 atgtcgcgat gacgccgggc acgacgccga ttccgaccac ccatcgccac atgatatcaa 3000 ctgcgcgtgt gacatcgtca tgtccctgct tcttgctcag gacggcgacg atcagtgaga 3060 cgatattgcc agcgatctga ccgagcggct gcatgaagaa gacggaggcg atcatgcgcg 3120 cgcgatggcg ggtgggtgcg aacctggttg gcagccgttg ttaataactg tctcctaacc 3180 accatagett egagatttgg aataggegtt gaacataete agaegtaatt aeggeaetea 3240 acgggtaatc tgcaccgacg ccgatcccca cgatgatcct ccaccagatc agccacgcaa 3300 agacgeteat getecegtgt gteceeteeg aggacatege gacgeecage gtegaegeaa 3360 tragragege cagttraacg regtaratet tettregere gttgeggter geragatage 3420 cgaacaggac ttggccgagg agggtgccgc tcagcgtggc gatgttgatg cacgtcagtc 3480 ggaaggaaga ggtgtcttca cgccaataga cgtaggaaat cattggaagg gcgatattgc 3540 ttgcgaataa ctatcaccgc gtcagaaatc gggtcgatag aatcgccggt ggatgaatgg 3600 aacgagcgta cggtataccc atcgaggaag aagccgacgc cggcgacgag gacaacaatc 3660 cactggaagg actggcggtc gatggtttcg tagatttgac gggtgcgaac atggcgatcc 3720

ttgaatcgga acctattgtc agtatcttct ccccttgcta acaaccatag atttatagtg 3780 cattaggtcg tacctgctca tgctcgaaat ccctcgcgcg atcagtctta tacagtctcg 3840 cgcggaattt gctcatggtg atggataagg ggctttaaga ccccttgtga tgttccagcg 3900 attagatgga ccttggttaa gcaacgagaa gaaggcttgt caggcgaagc accaccattt 3960 gacgcatgcc acggcggctg gtgaatgaac aggccaagga taagaataag tgtgaaatac 4020 agacaccaaa acaccgttcg agaagatttc tggaagccgt cagtcaacca tgagaccaag 4080 actgccctgg tatttgcctc ccggtattct gcctgagacc tagtcagccc acgctgagcc 4140 cagcctagaa cggtagtgcg ccgcacatat acacaggaac cgcgcccgcc gaacgttcac 4200 cgagtcatgg cgcgagctcg agctcgtgcc cattctgccc tgcgtggcgg gacatccagt 4260 cccatgcacg ctgtggagac caaaccagtt gagttcggag aacgtgaaca tactatcgag 4320 tgggggtacc tgtccctcaa tcaagatcta taatcaaagg ctactactaa ggtgatgaag 4380 cccgtgatcc tctgacaagc atgattggag ccgtcccaat gcaggctaaa gtagctcccg 4440 ggatgggact cttggtagtg gagaccaaac aagccctagg aaccaattct cgccccacg 4500 tgcccaggcc gagccctgag agacgttggc cgttcgacct cgtcacctcg tgagtgtctg 4560 acatgtcaac agggggcttc tttattggtg gcggcagaac tggcacattg gctgtgtcag 4620 ataatgttga ttgttcttcg taatgcgacg taatggcgcg ggaggacaat cactgtcgct 4680 gcattctatg ctaccgggtg ggcttgtgat cgtcataggt gtcttgtctg cttgctttgc 4740 taaatcccat gaaatttctg caaggtgtag gtttacgtgg tttgaccgca gatcttgaag 4800 aaaaagaaaa tgccatgttc cagcatgtca ttatgagtta gaaaataagt gtatacacag 4860 taaactcggt aggagtgata ataagccggc caccaaccaa accaaaagtg gctatcaaac 4920 cgaaacaagg aaacgccctg gtatctcaat gcaatctaac aagtcggaaa catgcaagcc 4980 ctgcgaaatc ggaacacgag atcataaacg gaggtcaaaa acggagcaga caagccagcc 5040 cactcatcga ttattggctg cgagaaattc acagaacgct tttttatctg ttcggccatt 5100 gcgcatgtca gcctctctgg ggcagaggag agctagagga ggaaaagacg gtgaagactt 5160 acceptcecta tecagaaace agatetecag egtectcate tetegceagat egteaaagtt 5220 tggctggagc tggagcacca ccggtcgccg tgagtttttg cctggcatga cgctctctat 5280 acageteact aggtgeeate gaetgtagte agegegeagt ceataatgaa tgtgatteae 5340

tgtaaatctg tagggcaggt ggaacctacg tgggatggaa acgtatcgct tcctctctt 5400 cctctgcgaa ttggcaaaga agagcatcac cagttttccc gtatggtcct gccttaggat 5460 ccgcagattc tgcgatatac actcctcgcc acgacctttg gatttcgcct cggcgatacc 5520 tgcgataaag acgattcgcg aggcgagaat gagttcttga aactgtagac agtccagcca 5580 ggattcgaat gtgtaggaga gttgggttgc aaagacggtc gcgccggttt ggacggtctg 5640 ctcgtccagg aaggagatgc ggagtgagga cggggtgtag ggctctgagg aggtgatcgg 5700 atgttcgagg tggggtacgg gaagacgggt tgtattaact ggtaacgcat tagttggttg 5760 gattcccgag acgctgatat tggtgttgaa aatgaagaag gaagaaaggg tgaaggggag 5820 ggtgatctcg tacagctatg tagaaaggca gtctgctgcc caactgcgcc gcctagttcg 5880 aggcatttca aagcgccggc gaaatccttc cggatattga tgaatgtata ccggagcttg 5940 aagagtctgc tgctcctgac gaaggaccta acagtcgcat agtcagccat cttatcccgc 6000 cacattgctc tcgggttgag gtggacatac accgtcaccg cggggttgag cggtaatcgt 6060 gcgacctcgt cattgaggga gccctctcgc ggccgggatg cgagcgacac agacgctgag 6120 gtcgatggcg aaggaaacaa agacgggctt agagagggcg agaagggcgg ttcagagacg 6180 aagcagaggg agccggagac ggacgagcgg gacgaggtcg cggtcgaggg ggtggaagaa 6240 acggtcgcag tgctttcgcg tctggcagag gctggaaacg gccggtcttg gagatgttcg 6300 tgagaatatg ggatcatggt tgggaagaga ccgaggagag ctcgacaagg gtgctggtgg 6360 tttaaactga tcttgaagag gcaggtggat ggaagtcgaa tagaagcgac agaatgacga 6420 tctgcggatc acggcttgga tcggcagcaa gactgacatg tcatgggaac cagaagagaa 6480 atgctggaca gagacaagga gtggcaccga gtgcctaagt agcctcatca ccttgggacc 6540 tggagcctga gcctggacct ggatgtaagc gcagtagctg gcatgagtcg ctagcagctg 6600 ctgggaatnc gccatcgaaa acaggaacgc atggtgtgaa agggcttgat cgganacagc 6660 ttaagengtt caggtatgat atggtteeeg taatteaeeg tgataettgg eag 6713

<210> 742 <211> 6017 <212> DNA

<213> Aspergillus nidulans

<400> 742

gcacactaag ccgcttatca aggagggact tgtgcatctc tttcccaggc ttgacgagga ggtatttttc ttcgggggcc tggttccgag tgacgttttc tgtcatgggt tggtgttggt 180 ttagttttgg atttgggatg ggagtgtatg atattgaatc ttgagtttgt ggagtctgcc 240 agatgatttc ttgttgatgt tgctgttgct gctcttgtga ttgcgggact tctggtttct 300 gtgcagatat agtcgtctgt gacggaacag cgttccctgc tcctgccatt gaaacattcc tectgetega agtegteggt etegaaaatg aaateegeee ttttgattgt tetgetgetg 420 cttctggacc gccaactgct gttctgggca aagagttatt ggcaacgacc gcatactcaa 480 catccgaatc gagcgagaac agcacaaccg tgttgacttt agtattcagc ttcattcgaa acgtcgcgaa gttgcgcggg tctaagtaga aagtatagct tgctgttacg acgacatttt ttatattgag tcccatgttc atatttgtaa tggggctcgg tcccatggtg ttgaagattg tgtggctgta gctgcagctg actcgagaga gagcctggtc gcgcgcggag attgggcatt 720 tegaetteae ggeeagggat ttggatteae ggagtgtgae tgagggtatg cacaetgaee 780 tgtgggaaag atggcactgc tttgcgcagg tgtcgctgca aaagcgcgtg atattgcata 840 cttatatggt acttgttagc tcttgcgcta ggctagggtt aggtggagaa ttgacatact 900 gctgcaaaac atcctggtta gagcaccaca acgctgacaa ggccccggct ctttaagccc ccactccctc ctctcagctt ccagggtctc ccgacgccgg tttagctcac agatacgttt 1020 ctccgcgtac gcgatccttt tccgtgattg atgcccatct tgtgtccgct tcgccatatg 1080 cacaagctgt ctgtatgcca gcatcgcttt gtccacggag tccaaatgtt ctcgagagac 1140 gcaaagcgca ctcagtgcgt cgaatgtctc cgctgcttcg ggacccttaa ccgccaaaaa 1200 gtcctcgacg agcgtttcga agagagctgc tgcgtcacgg ttgagcccag cgtccatgta 1260 tgaacggccg agacggtgaa tgacgcgcag gcagtcaaca tcgcgggagc gcttgtagct 1320 gtcgataata tcttggatgt ccggtggaaa gtcgaagtta tctgaacttt ggatgtagcg 1380 caggacggcg tcgcgagtga tttgggcgga gaggccaaag acagcgcggc agtgggggat 1440 tgtgcggctg catataatgc gtgattcatt ctctagaccg agcttttggt atagtgaaga 1500 gagettgtte attgegttta gggttgtgge gttetggatg eegaaaaeeg tgtegaggge 1560 cgggaccgtt ctcaagcagt aaaagtgcgg actcaagatc gccgagcaga actttaagag 1620

atgctaagcg ctgcatgctg catagggtct ctggggcgtt gtgtcccagg gtcctgagtc 1680 ggcctgcaaa ggaccgctcg tacagcgctg cggcctcggt ggcgtatccg tctttctcgc 1740 agagactgcc gaggtcgtgc aggacggaaa agttcttggg atggtcgcga ccgagcacac 1800 gcttgtagag acccaacgat tccaggtagc acgcttctgc ttcggcgggg atgtcaaggg 1860 cctgatatgc tttgcccatg gagtgcagga tagatgcccg cgtttgcttc tctatgtcga 1920 ggcctggcgt gtcggctaga agcttcatcg tgtcgtggag ctctatgatt gctccctgcg 1980 cgttgccctg tttgagcagg gcttctcctc tcagtcgtgt tgttagagcg cgagaccaga 2040 cggctgttga tgatagctca ttcttgatct gcaggaatag tttggcaacc tcatccactt 2100 ggaggattet ttgccggccc gagacgtcat gcacaatcgc tccgccggag atgtactgca 2160 tgtggacgaa tacgttctgc gttccccgta gcagggcaat atagtctgtg tcctggacag 2220 tggatgagct gttattctga ctctcatctg tcgaaagcgt gctgtctcta gcagtggcag 2280 tggctctgct atctctggaa tacttagtta caaaagaaaa tcgtatggta ttggcgcgct 2340 teateagett cetgeetetg titgtigaet gigagegega taaacetgga eggicagett 2400 aatgacaaca agccggttaa caactcatac ttaacggcac tttgcgtccg aagagcttct 2460 gaaagaacga ctgccgctta gacgaacgag gtatttcata atcaacattt ctgctgtcga 2520 taagcgcacc atcggaatta tcgaggtcac tggcctcgtg tctgttctcg tcctcgcaca 2580 gggctggttt ctcgggttct atcatagcgc cgtcgccgag ccctaattgt ttagaaggcg 2640 tccgacaaga aatgtatcaa cgtaccactt gaacaaaatg tcgcgtctga gaggcccatc 2700 teeccagetg ggagegaetg gtaaaeaeeg tttggtgeat geaetggata eattageggt 2760 acacctccac tgaagcttag ctactcaccc ctttccaaat caaataaacc ggcaaaactt 2820 atagctagta gctcttcttc atcgctctga gaaagctctg gcaaaatcag tcggggtcat 2880 tttcccttga gagctcatca tacttctaaa agaccaagaa tcgcgcaatt ttctagcttt 2940 ttttgctaac gactgctcgc cattgatgtc agacatggag aatttcgagg gcatcgagct 3000 cttctggaca acactggggc tcctgctatg gttcgcgctt gctatgtctt tttgtatgtc 3060 gcggtggctt atgtcgtcgc gggggtcgtt caagacgggt tcgtatctgc ttctgttagg 3120 gttatgttta ggaactgaaa tttgggtatg cacacaagat gttgcatttc gagccacagt 3180 acgtgcaatc cacgaaacat atggtgtctg ctattggtta gatgggtccg aaagaaagga 3240

eggtaatgee caettggttg tetgtetace atetegtegg eeggagaaaa aagteteteg 3300 caataactgc agtagaaccg gatcgggcga gcatcgagcg gaatcagccg tttctccatg 3360 cggaaccett ttgtgattaa actagcagge cgttageteg accattecag tecaegaeet 3420 ggagaagtag gtaataccgg tcgcgcatca tcacatatac agcaaccgct gatccagtgc 3480 agtatetegt eaggtagtgt tgetteaget egtteetage egggttagee ttteteteea 3540 cacaatetea teegacatea gaatgegaaa ggatgegtae teagaegaaa acacegeate 3600 gcaatctgga cacttaacct ccatcgcacc cagcgacgtc ccgtcgtcat cacgaaatgg 3660 agggaatage egtaggaett eetggaagtt etegaetget ggggaeaaet ettgattete 3720 tgagccaagt catacgtcag tgcatctgtc ctccatgttc tcttctcaag tatacgatgt 3780 aggcaatacc gctagtagtg gaccggccgg ctagtgataa aagaacgtct gatgcgcgca 3840 ggatccgtct cttcccctca aacggactcg accgcgttgt gttgaggagg atctcgttct 3900 caatttctcc tttggtgtca ttcccgaggc ggttactgta catttcttgt caacccaatt 3960 tcgaactgtg aacgagtcgt tgcaggactc accgatcccc ggacaacgag accgcgtagt 4020 ccctgtggct gagactgcgt cgataactgt agtcgcagtc tacctccatc tccattcaaa 4080 gcgccgcgac ggccagtaca attgcaaaag caaagagaat atgatgtgat acactgttaa 4140 accaaaaata aaatgcagaa ttcccaacac ccagtctcag ctcagctcga aactcagcaa 4200 acgactgtgg atgtgaatgt caggtgaggc atcatttcag aacctcccgg gagcgcagtg 4260 catatgtagt gttaatgcag ctgcgatgcg ggtcagcttg acaaagctgt tttcgcctct 4320 acttcagctt cagctctcaa acggccggga gtgcctccat actttgttgt ttcaagggca 4380 getteggeee geeeaattgg tgteetgege atecetgtge atecetggaa taggetggge 4440 tgaagcgagg agggcgtttg ggttgaatgg tgtgttagtg gtacgatgaa gatgagtata 4500 ttettgetga geagtegatt ceteaettgg gtacagetgg agagaggtee agaegetgga 4560 cactccaccc ctcaactgtc gacgtccatg tcaacccact tcaagggatg gtcagtcaag 4620 tcaaatgcaa tcgtatccga tacaagcacc ccttgcatag cgtccaatcc agatcaatga 4680 tcgcccgcaa acgcagcagc aatcgccagc gaccgcagac ttgcaggggt tgaggcggtc 4740 gaatcattga ttgatagatc acacgcactg atcaccactc atcggggttc tcaactgggc 4800 tgcgagttca cgcaacagta aactcaaaaa ctggtttatc tgaatccttg cgttgcctta 4860

cggcggcgga tgcagtgtgc cagtaatgeg aacggccaga gtctggagaa ggcggtaggt 4920 tggagttgga actggaagac gcgaagaagc aagcgaagga tctatggacc ccagattatc 4980 cgtaccttgt cgatcatcac cttctgaccg actcgatcag tttacgacgc aaacgcaagg 5040 ccgttgaatt cattaagagg gcattacacc atgagctcct agatgggatt gcagcgcaga 5100 atgtaacaaa gccagtccag gttgactggg ttatgaatcg attaatagcg gagaattcgc 5160 acctatctac tgtatcatct catcaagagt caggatttgg ctgtaaggac agtcgattta 5220 ttgtctgaat gagtccatgg tccacgtcac tatagaaacc agattgacct ggccccgacc 5280 gacatttgag agetegegee tagagatace aettagtgee taggtggeag aegaatatee 5340 actgtatgtá ctccgtatat ttctcataga tgctatatga aatgacaaac tgatatatac 5400 acattacact tttagggtat cgaatcaaac tetttgaege egaeegaaeg etgaggetgg 5460 aaacataata aacgctgaag cgctcaaccc gacgaacaag aaagaaggaa gaaagagaga 5520 aagaaagaaa tagacatggc gcgtatctct ttgcatcatg aacgagagaa aaggaagtgc 5580 cagtgggttg ggggtaggca ggtaggtaag ctaagcccac ctccatcccg aacccatcgc 5640 ctcctggcta tgcatcaccg agaaaaggat actatttctt ggctcagtcg attgtccaga 5700 teegateage eegggegagg gataaceatt tgtaeteegg eecatateea gattetgeet 5760 ctgatactcc tggagaagca gagacaccgc cgcattgggg ttaatcccct cgccggtatc 5820 tgtgatettg agegeeeatt tggegtette eteggegaae eegagetege aaaceateat 5880 ctcgatggct tggtcggctg ggtcgcgaat ttgcggtgct tggacaggag gccttggtgg 5940 gcaggcgttg gtgtaaggga tttgaatgtt gtgcgtgttg attggggggat ccgtttagtg 6000 agggttaaat gcggccg 6017

<210> 743 <211> 5632 <212> DNA

<213> Aspergillus nidulans

<400> 743

acceccacct cetectggtg etggtgegee tactecacca cetecteatg gtgetggtge 60

acctecteca cetectggtg gageageace accaetacet caacetagtg gaggtaggaa 120

egaettgatg getgetatte gagegtetgg eggtggaggt ttgegaaagg ttaaagatte 180

tgagaagaaa gatcgaagtg cagccatggt gcctggagca gctagtgaat cggcagctgc tactcctagc actggtggtg gtcctcaagg aggtttggca ggtgcattac aggacgccct agcgaaaaga aaacagaaag tcagtggaag tggtaagttc tgagtctcga atctattgga 360 tttcaatcaa tgacctatta tcagatgatg agaaggatga tgacgatgat tggtagcgac 420 atgcagctgg gcgccttttc attacetggt cettttctgc ataggtettt cagttegata 480 ectacticet etagietiet gitgiagiet aleteatati giaegeggat taatigegga 540 ggcggtatgc gaatctccaa aattgcggcg ttcagtgtct tgttcttcaa accagtcagc 600 cgcagctcac gaggctacaa agcgaagctt acagggaatt tcactttcat agaggtctaa 660 aactgctttg tcattgctgt actattttaa acattatata tgtccttgct tcataqcgat taaagaggac gtactgtgta tagatgcgga acatagttga tccggcttta tctgtactgg 780 aaaacctgaa gagcggaaag gtaagccatc gtgaactcga acaaccgcgg acgggaaatt 840 tggatgtaag attgcgagaa gaattctgtg caatctcccg ccgagatctt gccagaacaa 900 accagaaatg eteteacegt egeetetgaa geetteagtt eeetetgegt eactaeteeg 960 gttcctgcgt gctcaatccg agtcggtcct cttttcgact aaccagccgt cggcatgccg 1020 ccgtatttct accagactgc ctcactcgtc caatccgttg ccattggagg gacattctag 1080 tcgaacgcgc ttagagctca gtccgtgtcg agttcgccta ttctccgaag ttgaaccttt 1140 gcgatgtcgc atgtcacgat gcgacactct tttatcccag cgtctttcgc gatccccgca 1200 atcccggaac ttctcatcaa ccagaagccg accaattctg cgcagattct gggattttcg 1260 acggaagaag caggctgctg aaccccgccg gggaccttcg ttgctcgacg atacagaaaa 1320 tttgagcett gegegagege tageggeeaa ageeteeaae gagetgegee ttegatgeae 1380 cgagtttgat attaatggaa atgtcacttt aatgaatgga gagttcaaaa aaagcgaact 1440 tattgcgaag gttaggatta aggactgaat ggggtgacga aaagctaaga ctgtcacagt 1500 atggccttct tccgcgtgat cttcgaaaaa tcgattcctc aacgctgcct catattttcg 1560 tgcggcccag tactatectg atcaacette tecateteeg egttttaate aaagetgate 1620 gtgtcctggt ttttgacgca tatggctcga cggactcata tatgcaatct ttgtttgtat 1680 atgacttgga gggcaagcta cggcagaagc aggctcagag cacgggtgcg ggatccctgc 1740 catatgagtt tcgagccctc gaagctgtct tgatcagtgt gaccactggc ctagaggaag 1800

aattcaacgg tgttagggag ccggtcgtgc gtgttctgcg cgctttggag gaagatattg 1860 accgggataa gctccgacac ttgcttatct actccaagaa gctgggcaca tttgaacaaa 1920 aggcacggct ggtccgagat gcgattgacg atctactaga agcggacgac gacctggctt 1980 ctatgtacct gactgagaga gcaaacggtt tccagcgcga agagcacgat caccaggaag 2040 ttgagatgct cettgaateg taccacaaag tetgegaega gategtteaa getageggea 2100 acctagtgac cagcatccgc aacacagaag aagtgtaagc cgttttccac aatacattcc 2160 cgtccctact aacactcctt agcgttaaag ctatcctcga cgcaaaccgc aactctctca 2220 tgcttcttga tctcaagttt agcattggca ctctcggcct cgcaacgggg actctgttct 2280 ccgccctcta tggcatgaac ctgaagaact tcatcgaaga gtccgacctc ggcttcggcg 2340 eegteteegt caettgette gecatetetg etetegtgtg egtetaegge etegeaaage 2400 . tacgtaaget ccaacgtgte egcatgtggg gggaageegg egteggegga acceecatea 2460 teceteteca etettetege getagegeeg ttecaggeea eegegeeaat tggegtgeeg 2520 actccatcga gcctgtttgg ggcagtctgc cgggtgaggg aagggcggag cgtatgaagc 2580 gcctgaagga tagctctgct gcggcggcgg cccgctcggc cgcgagtaat gcggcgagca 2640 cgagggctgc aagtetgagg cgtgcgatca ggtttccgtc ggattcagcg gtgaagggga 2700 aggagaatca gaaggatgcg gctgctgctg ttggcgctga tgctgatact ggggttcaga 2760 ctcagagcgg gggttctact gctgcgtgat tgcgttacct ccactcatgc cgtcctatat 2820 ctctctatcc attaccgctt accgccacgt atcatgtaat ctaatgcctg actgatacca 2880 tgtatagagt ttgctcacgt ttgttttccg gatgcattcg aagctggtgg agttcgggtg 2940 gcttctcaat cgaagtattc ttataatcta gataaaaaag aatagaagat aactcacaat 3000 ataggtettt atacetggat tttcagttgt gtgcatacgt gcateegeea ggtetegaee 3060 agtecaaget etaceaagea etageeetag cettategae ttaegaeete etgtagaeaa 3120 ggttcatgcg attcatgcaa atataagtca gatcatgagc tgccgtttcg ctccccataa 3180 aaaccctcaa aaaacctctt aaacgccaga gcaccatcct ccccaaataa catcttccca 3240 ttaccttccg tctcttcagc cttttccctc gtgcgagaga acatttctaa ttcaaaggtc 3300 tgtagtaacg ggtcgagcgt agcgagaaaa gatgcagact ggccgttact gtctcgaaaa 3360 gcacggatta tagctttgga aagcagaagt gagtcccaca tagcgaggtt tacgccctca 3420

cctgcccaag ggggcatcaa gtgcgcagcg tcgccgatga ccgttatgcc tacggcggga 3480 ttegtategt gtgaaaagge getgtetatg gggagggtgt agagaggett gataggaagt 3540 ttattgatat ccgtgttcat gttggactct tcgtcgcaag aggcggagac tagttcttta 3600 attgacttcc cgaatgagcc gagaagttga tcatctgtga gaagacgctc cttggcgccc 3660 tgcagatcaa gcttgttaag tccggatgtc gaggcgaagt gctcgtctgg tatagagaga 3720 aatgtgtata tacgtgctga atctgcagcc ccgcgttgcg ccatcacgcc atgacgcagt 3780 ccaagggctg agaaactccc gtctccaacc agagatgata agtgtgggta ctttgagcgg 3840 atgttgtaaa ttgtccctgt gatgctctgc atgccggtat agaatggttt tacgtctgtc 3900 agagetegge geaegegaga ecaggeecea teegegeeaa tgagaaggte gaatggttge 3960 ttcccatggg ggccgaaatc gagttccttg gttgacgctg aaacggagag gagcttatgc 4020. ccgtatctga tagagtccgg cggcaggtgt tcggtcaaca tattggtgag cgcatgccgt 4080 gagatetetg geegetgget eagtteacea eegteggegt agatgatatt geegtettta 4140 teggecacte gttgegeetg ggaacatteg eeegtaagtg tgaggaatgt tteatacagg 4200 ccgcatgctc tgagtgcggc gaggccggac tcttcgtgga gatcgagcat gcctgatggt 4260 ttggcgaggt ctgcctttga cggtttttgg cgcacgtcgt agattgtgaa gggaatgtgg 4320 ttcttgtaca ggagacggcc gagagttagg cctgcagggc gccgccgacg atggcgattc 4380 tggggggctt.gaaggacatg gcgggtatct agtgatgaaa ttgatgatat tacagtcaga 4440 ttcatggcta gggtatatct tcttatatgg gagtcagccg gaatgttaag agtccgtgta 4500 tagagcgctc ggtaatttct ataggccgac aatcattagt ctgaatgaag tcggaaagct 4560 tattgeegaa agageeteag geagatgtgg teeageagae ggeegtgeet tetaggeeee 4620. ccttgataaa ctagttgtga atcgctggtc acctgaccat cgcatgtgat tgaacgtgtt 4680 gttctgtgtc gctttcaaac agacaactgt gctgccagaa tgcaagaatt cttgttgaca 4740 atcgaattca atcaactgcc tgccttacag tggtcttacc cacagtatgc ggtaagaaca 4800 gtcgtcgcta ccctaaatat ggattagaag agctcgctca gaattctctt gaaaagagtc 4860 gatgagacct gaaatatgtc tggatcatat tgagacgctg gcctatgtat ggtgctgtag 4920 atgacacctg ccagtccttt gcggttttaa aggttggggt ctaaggttct aagaattatt 4980 ctgctaacaa taggaacagt agaagagagt gcgaatgccc aagataataa agagtgacac 5040

tgattgatgg gctaaccaag ttactcaaag aatgaggcaa agatcagact aagtacatgg 5100 agcgagcgtt cctaaacgga ataaaacact taacactacc gcccaacatc ctccagacct 5160 tgggcgcagc acaatagatt tcataagtgc gtcaacatac ctaccgcaca cgtactggga 5220 aacccgatcc agtcttatga ggagtataga ggatgactga tggctatttg tgcggcaacc 5280 caagtctgcc agagggccct agacgcagac ttcagacaac gcggtgtccg gttttctaa 5340 gccatattct atatagaaat cccatcggtc accgatacaa atgcaccca ctacaggagg 5400 tggcgagaca accctgttcc gttcccacat ccagaatacc agcccagaca tctatattc 5460 gagctggacc tctgcctcaa cctagttccc atccggtgc atttcttcga caccagcact 5520 cagcaagcgt gacgcagtgt gtagatgcgc aacatgactc atagtctgat cagcatagct 5580 gcggagatag cctggtattg ggatgaccat atatcaaccg gcaatcgtac aa 5632

<210> 744

<211> 3294

<212> DNA

<213> Aspergillus nidulans

<400> 744

acctatataa tetetttet cagcactgtt caggatttag ctcagctgga catggacaat 60 gtetaccaca ttatatcaga actcgtcagg teteagacat tetetgtcag cagatacete 120 caatggetta tggetaaagg tgttgcaaga aagtegagtg gtaccagtgg agaggtatat 180 eccecgtaaa ccaatttgaa gettaggaac cactgactta tgatttaggt cetggetget 240 gacgetegte teettactca acttecaatg agtegtteae cagagcacgt cegtaatete 300 egettaacge ttetageteg ggetggggta teggtggacg aagaaagtte taccatcaaa 360 tgtetaaaat cetegataag ecagegeetg eegaacatet tegaggttga ggetageaac 420 agcaaacaca taaatttete aaagcatgat ttgacgtggg etgteaagte ggaggteage 480 aggttgatae gecaaggggt ggtaaaacat ttaaaggata egactaggta agcaatggtg 540 agettgate getgteaata etaategat cagaaaaata attgeaegee etetetetgt 600 tgatteaagg atateageet tgacgeegga agagtttae tgegttegag aaatattaga 660 gegttttgga gactgeteta teettgetga tgtgeteaag caagctateg aatgegatga 720 caatataata etageategg tetetgatae tgttaaetae caetttgaeg eettatetat 780

gattggcgcc acatcggatt tgttcagagg actggttggg tcttatgcgc gcctcaaacg 840 ttccggcaat ctcagcttag atttcgtctt ctcgttgatt gagcttggac tgcgacttcc 900 cgatgagtct ggtactgttt atcttcttcg ccaggacctc gctcggattg aaagcaagtc 960 cgcactagca gctccatctc cactctcgga tcatatccca acaacgttca acgaagtcga 1020 tgcgtctttt caggaaaggc tggagcagct tttgtcttgc ggcaatggct tagatgagtc 1080 tacaatgggc gcgattatta gctcgcttac caaaattctg actgatggag gcggagcagc 1140 taaagtgtcg gcaaaagatg cctgcaggta tctggcttac ctgcgcccgt tcaatcccaa 1200 atatetegae ggeatgetag taagatatgt ttaeggaete ttgaagtett egteeeggee 1260 cacaatgtct caagtccttt ctcctcttat tggtgtcgga tgtgtcacga tccatagctt 1320 cgtgctcttg gtcaacaagc tatcggcttc cgcgcaaacg acaggggcga ttgccaaccc 1380 agacagtttg cggctcgaca ttcttgagct cctcctcct caggaggaaa gcagtgcgga 1440 catggtacgt ttgatgaaac cctggcgaac tttctgatta ctgatcctcg gtttataggt 1500 cacctatege tttegeettg egeageaaga gtttetegte aagtaceeeg aggagaettt 1560 gaacataatc agtgacgcga ttccgttatt tgatgccgat tttcatgacg cgaatttggg 1620 atcaaggcgc cccgatcttc cggcatgcac agtagtattg ctacggacac tgttggcgca 1680 aaactccagt cttgttctaa agtactgtat gcagaagctt gacgggcact catccttcac 1740 aactgtttta ggaaaagcag ttgacatttt gctgggtcta gaccccgaag acggtttgtt 1800 tccacggggt attaactgta atgtacagtc gactgacggt cacatagaaa tggagcccag 1860 ctcacaggct gagagggtca ttctcatgaa caacgacttt tcgctcccat attgccagtt 1920 aaaactgaaa cttttgttca acgcgaaggc gggtaacgag gttaagaacc acattgtcga 1980 tgtgatgttc aaggcagcgg tgacagactc tcgttccaaa agatcccatt gggttggtct 2040 agttagcctc atggatcaag aagcagctcg acaggtatat taaataagtc ataaatgtcc 2100 ccagttctga gcgctgacct tgctagattc gcgaacgagc agaaggctgc tttttctccg 2160 tegeaatgtt egaegaatee atggatgata egteattgee ttetggeget teeagtetaa 2220 gttcgattga aagcgcaaaa ctatacctta acatcattga gaagctggcg tatagcattc 2280 ctcaagccgg tgtccaatcc ataccccctc ttctggtgga gaggctggat cttctgcttc 2340 agaaacttat cataatgcag ataaactcga acagcgttgc cgcttcaagc tcgggctcaa 2400

ccatcgtgtc caagatcaac ttcgagcgag ccctcgcgtt ttggttctcc gcactcctca 2460 ggctaattgt gcttcatcgt gctgctttca acgtgccgcc agcttcgggc tctaaggttg 2520 atagettgeg ggaacaaaca egettgettg tategatett gtgeatttea ttageaegae 2580 tgccagaaaa catcettege etetteecag etgeegaeta tttteeceae accatacaat 2640 ctcataattt tcgaccgtgt cctgggattt tgttgcaaac tcacgccttg gatgtcgccg 2700 cgtctttgat tgactcgttt ccagatgaag cacgccacca gtgtgtgcgc tttctcagag 2760 agagatgece teegtteete aaatteeaga atgaeegeeg atttetatat ettetaggte 2820 ctatgaccga caccactatt cccagctccc aactetetge etetatatet teteetgetg 2880 ctggcggctc tactccgact ccaatcccat caggaactct ttctggagga cactcaagcc 2940 aggcaacgca acaaatggct gcgctcaccg gccctttctc cgggctatcc gagaacacga 3000 aacttgtcgc ggaccgtctt cgcattcaga acggcggccg tatcaatggg ccatatccag 3060 tacggccatg ggagcttett acaagatgca geteegatte teggggtgaa tgataceget 3120 gtgagcctta aactttttga cgccaggcgt gtcagggctt agtatacata cgtcctcccc 3180 atcacctaca tatttccatt ttttccttgt gaaaaaactg tatgttgcag aggtgctgcg 3240 3294 ttctccctgg tttatattca cttccttttt ccctcaagat accagagagt ctta

<210> 745

<211> 7195

<212> DNA

<213> Aspergillus nidulans

<400> 745

cgtcggcagt agaagcaatg gcgccgcgac cgcttgaaga agaagggcga tgaagtcgaa 60
cgtgatgaag gtgatcgtgt atgttctggg cttgaagaag gagatacgct cgccgtacgc 120
gacgacgatc cgcgagagcg tgaggtagat cgccgccgtc aggaacgcgg gggcgatcgt 180
gagcgagacc aagtattgta agaacgcgtc gtcgttaaac gggttatcgt gaagcgagac 240
tcggccgccg tacccaacca cttctcctgc caggcctagc accatcgcaa ccataaacgt 300
gtatgtcttg tatcggatgc cgaggaagag ttggacgacg aaggccaagc cgaacagcg 360
catgaacagg atctgcgcc acagcttggg gatatattcg aaggaggcca tggaaagcgg 420
gcatgtgtcg agggtgcaga gggacgggtc ctcgaggagg gtctggtttg ttggcaatgt 480

ttccatcatg gcggtcccca atgaagaaac ctctgaaata agaaacgatt gaactgggca cggaaaagct gtctgcaaat ctgaagaaat aaagaatgag ggtgaagcta gagcagtcgc 660 cgtctataca ctgctgtaaa aatgatgtag ttattgtatt gttcttgatg ttaatgttgt tgatgttgat gatgatgatg atagcttgag atatcgagac ctttaatact tggtcttctc 720 actaccagat ccccaagatt cagccacgac ctggcagtgc ccattctgtc agattcaaaa 780 tagatcaaaa tagaggtacc taacctgaag gatcaggcag gcatcttcat ttcacagcgc 840 taggagatta agctcatatt gtgaaagccg tgattggtca tctcgtaaac tttagtttca 900 accetaatet caaaatggee ageetggate cagteeceae ttgeegaegt gacacagtea 960 ctgttctgct gattgtagtg cttactcctg cggtgtcgca atttacctgt cttatctatt 1080 tttgttgcac accttcactc accctatgag atgaggtcag taggcagtga tcaggggccg 1140 teggeagegt cageetegta aattgtegag etgeaaggea getatacate aateeceate 1200 acattgaatc tcagaccgga gtataagttc ctatcgacgg actcctagaa tatagtcctt 1260 tcagtattgg agtttctgct gtacaatcat tacgtaggtc ctgtaaatct agaggcttgg 1320 cgccatgctt gcactcatgc ttggcgccca tgacatgcta aggctgcgat gaaaattcag 1380 caccgtattg ggccaatgag aaaaggatcc gaggaaggct gtgcaagatg tatcttgtat 1440 aacacttccc ggtctgcagg ggtattggac cctacgagct caccaatcgg caatttgacc 1500 gactgtggtc taaattgacc atcagagttt tgcgtccttg gagaccctgc ttacaccgct 1560 aggtaattga gatcagcctc tatgttaacc acttgccgta catttcatct gagccccagc 1620 gatgacatcg atgcggtact gatggagatt cttccttctc cgcgttcttg aactgctgcg 1680 gccatagete cateteataa etgecaaaaa tgggcaattt eetaceetgt cagacetgge 1740 gcccttgcct gaattcagga ttccctctaa ccgaaaccgg tattcatatc gacagctgca 1800 categgtteg tgtacatact atttgetggg ttecateatg ttattagtaa tegeagetga 1860 actcacaact tctgtgtagg tataaattga ctattttcgt gcgattcgga gtcctaataa 1920 cattagtaat teetacaata tetgeaetea gtteateagt tggatgaett ggteaaatat 1980 agtcattgac tggtaaaaca agaccagaat gttgatcttt gattgtaaaa agagactttg 2040 acaaacgtgc aagttacccg ttacgggtca agccaaaccc gtatgggtcg ggtttgagta 2100

cacgatcaga accegcagag tegattacgg gtecacette aaccegtaaa agatttgatt 2160 aatacgcggg caataggtac aaacatgcta cataagccta atcctcagat aaatcgcatt 2220 ttgatgcaga gaagatagcc tgataggaga ttttaaatct aaaattgttt ctggaagtta 2280 actegtggat tacccaaaac tgcgcgggtt agcgggtttg tacgggcccg accetggacc 2340 cgaccgcggt taggttctgt cgaccgtatg tgacagctag ccatatatgg aacttccctg 2400 tttaagatat eggaattgta agtteegaet egeegatget tatgeagaga ettetgeett 2460 teceegttea aaagtaatgt etettetaae tgeegtattg getaggttge ttateattte 2520 ttatttatct aaaccgacct atagagctag attggaagaa ggggaccttc attctttata 2580 ttatttgacg gctattcctg gtaattacgt ctagtttgac gctccattgg ttctgacctt 2640 gcacccccgt aacgggtatt gtcatggttt atgtaggcgt aacggacact cggatccacc 2700 caagcttgaa gactgtaatg caagctgaat gcaagccgaa tgcaaactga cgcaaactga 2760 agaaactaat cagaatctat atcatatctt tcatattctt catcaggagc catcaggaga 2820 aagccctact cccacttggc cccttctgga caagcagttc cagaatgtcg gcatgtccat 2880 tgggcacagc aagcacgaac ggcggccatg atcttgccct tttgccaatg ttcggctgca 2940 atttegetgg acaggtgtgt tttagtattg ataatettet geateatget gtetecaatt 3000 aggcggagag cgtgaaagtt cttgacgtcg cgcaaatttt aagctgacca gagccagatg 3060 acgccactcc acaaggtggc atagctcggc ctcttttata ttgcgaatct ctatttaaag 3120 cagggtgcaa atatcaaagc acaatgaact catcagttgt cgcttacgga gccgtatggg 3180 cagcacctgt gcagcccctg ggcagcaacc ttctcacacc aacttcaagc agaccgtcct 3240 aattcctctc cttctattcg ctgttaaagg aagtcattgt tgaggataga aaccgatact 3300 gaaatttact agtgacttga ttcctttgat gtgaccatcg tgagcccatc attattgctc 3360 catctggtac tatcccaage gatttcatat caacctggac tgcgataaag cttttcggaa 3420 acctttctag ccaagaagat atgcgggggc ggtaaaatag ctttttcacg ctgctcgtcg 3480 ggagttggag tatacaactg tagagtgcgg ggtcacgaga tcacgtcact caaaatcctc 3540 ctctcctcgg caaacctctc tctttgcaac catctcacta aatatggctg atacattctc 3600 ctccattccc attatcgact ggcgccgtct tcaagaccca agtacaaaag cagcggcctt 3660 ggacgatctg cgcgaggcca tatttgtagt aggattcttg tacctcacaa accatgggtt 3720

ggaagtaggt ggcatctcaa tgcaggctgc actgtctaac caagatagaa ccttatttca 3780 aaagcacacg ccaagcttcc tgagctgttt gatctcccgg cggatgtcaa ggccaaatgc 3840 gacatgatca acteceegte attegtegge tacaegegte tgggtgegga aactaeegeg 3900 gcaaagactg attggagaga ggtacgtact ctgaacccta actttccaaa tgaagggcta 3960 atcgcagcag caatacgatt tcgggacccc gggaatgaag acgtggaccg aggacaagga 4020 catctggtgg cggttggagg ggaacagcca ggtacgatcg gctgagaaaa ccacagatcg 4080 agacgtattt tgacagtcca tccaacgtca gtatccggac gttccaggtg tcaaagagct 4140 cgtcgaagag tacattgcga gatcggcaga actatcacag cagttcatga gatacgtttc 4200 cgaatgtete tegeteecac cegacacttt egetgegtte aagggeaata tggacagget 4260 gaagtttatt aagtateeea ggtegeegee aaacteteaa ggegteggee eecacaaaga 4320 ctcgtccggg ctattcacct tcctgtcgca ggatgatacg ggtggattgc aagttctgaa 4380 taagaatggc gagtggatcg acgcgccacc gatcgaaggg agtcttgttg tcaatattca 4440 acaaggcctt gaagctatta caggaggcat ctgtgccgct acgacacacc gagttatcgt 4500 atgttetttg tetgegettg gtetetteeg gggeacacta etgatatege geeaggetee 4560 gacgacgaaa acacggtata' gtatcccatt ctttctagga gtccgaatgg atcttacaac 4620 ggagcaactc cgggaaagtg cagcgcacat tgtcgcccgc atcccagtct cggacgacag 4680 gaagaagcgc gccgtcgatg ttcccagcga gtttctttcg cctttgtact catgtgtgag 4740 tattatttct atcggatctc gatagcgctg acttgttggt atagtttggc gaagcatatc 4800 tgcgaaatag aatcctcagt cacccggatg tcggacagaa gtggtaccct cacttgtacg 4860 aaaagtacac caagcaggta ctctcttaga tgaccaatga gtaaacacct tagtctagaa 4920 gcaagcataa gacacatccc ctggtgtata gacaatgaga tcgaacgagc gcaatagtgt 4980 taatatgtgg gatatatata atcattgtgc ggctgtaatc tataccaagt cctgaagtat 5040 tttctattca tatttcctca ctagcgaact ggggaacaag aacatctaaa atagcatctt 5100 taaagaaccg ctgaagggta tacgagaggt actttagcag aaatccccag cttattctag 5160 catgettact acaattetgg tggggctact tgcacgegga gacegagace gcatecacaa 5220 aactcatatt gcatcttacc cacccaggcc gtatagataa agcgccacgt tagtgggagc 5280 tateggeeag teagetttat gegetatata aetteetgeg geteetggte gaggeaatet 5340

tgttgcaagg atgatgggtg gatggtgggc gagtgggtgg atgaaatcgt ggggcatagt 5400 ggatgctgag tcagcaagct acaccacgtg atggctaccc cagttccgaa tctggagaac 5460 ttttagtcca ggttccgccg gatcctcgtg ctcggtgttc tcccacaatc atgactgatc 5520 aggcaggagg cgtcaattac atgcgctcgc cgttgccgac gcgagtgagc agtgcttgcg 5580 agagatgtcg tcgccacaaa accagagtac gcaccattgg ctcactcccg aaatacttct 5640 gacetggtet ceagtgegat ceatteegge ettgeteeet etgegtgaga geecaagege 5700 attgcaggcc gctttcaatc actcgtcctc gcagtaccac ccggatgtga gcgtcttcgc 5760 ttctatcata ttttctgaag ctaacgcaca ccagctccaa gtctgccccg aggagacaat 5820 ctgcaagttc tttagcagtg tccgctaact atgaccatgc aaccccagca caacacactg 5880 agcgtggcag agatgagcat tacgcagatg gtcgtgaccc gtctgggcgg attgagtatg 5940 gagaagcaga gtcaacaatg gggattgctc agaaaattgt gggtttagat cggcagctga 6000 ttgatgagca tgcgacatcc gccatccccg gctaccaagc gagcaccaac gtccccaatc 6060 gccgtacgct agctatcggc cagaggattc caatctcatc aatattgggt caggcgttgc 6120 ctgcgacaga aaccatttat ttgttacttg aggactactt tgatgcggtt cattggttct 6180 cccttgtaat ttacgagccg acctttcgca gaaacctcaa ctccatcgct gatgggcttg 6240 cctgttcgtc acaaaagtca tttctgttac tgcttgcagt agtgttgggt atgggtgcgt 6300 ggtaccgatc ccagaaggag cccagggaat tgacggacaa cgacaactgg cgccgattga 6360 gcactgaact tatgaagctg gtcgagtcac accttatcga gttgatggat cagccctctg 6420 taaccgcagc gcaggtcctg atactgttcg gttcatattg cgtctatcac ggccgaccga 6480 atctgtcatt ttccatactt ggcgcaacga tccgaatctc gcaagctgta gggttgcacc 6540 gggaaccatc gcgcggtaca tttgaggaca acgaagaaag aaaccgagtt tggtggacga 6600 tatacacatg ggatcgattc gcatcgatca cgtacggccg cccgttaggg attaatgata 6660 gagactgcaa cataagcagc ccagcggata cctgggaaaa tccgtatttt gtggcacccc 6720 tggcagaaca aggccatacc atctgctatt ctgcctacca gcgagaactg aaccgtcttt 6780 atctgatggc ttcttcagct ctagaggtta ttttcggttc gcggacttcg ggttcatcca 6840 aggacctagc cggagatgca taccatgcgc tggttaaaga agcaacccag aaactacata 6900 gatggcggaa cgagctgcct gacaacctag tcctaaatct cgaagaggat ttccatcctg 6960

acagcacgcc gtcagctaga gcgcatgcgc tacaatcttt gtcgcttcag ttgacttacg 7020
acaacattct catcgttctc caccggcctc tgctagcccg acaagtcgac cacctttcga 7080
cagatcattc aacgcccggt ggaagaggtg gagttgacca agataacggc cgttttaata 7140
atatctcgca atcccaaaaa ggctcgccgt ttaagctctg taccaggctc ctgta 7195

<210> 746 <211> 2659 <212> DNA

<213> Aspergillus nidulans

<223> unsure at all n locations

<400> 746

60 agaagaataa atagtgaaaa aaatgaagga aaaagagaaa agtaataaaa tataaggtat gaaaataaga gatagagaaa ggttggagaa acaagaatga aagaaagttg ataggaaaga 120 ataaaatggg gtgttagaga agagataaga ggtaagataa tatagtaaag atagtgtaaa 180 aatatagaaa agagataaat gaatggaaag agagagaaga tgaagatgta taaaaaggaa agtaaatgat agaaggagag gagaaatagg agtaaaatga gatgaaataa aaaagaatag 300 360 atgaataatg aatgaaggag aaaaaggaga attagagaat ataatggtaa aagtaaggat aaatagatct agagaagaaa aaatagtagc atagtaaata aaggagaaaa aatataggag 420 tagagaggat aaagtatata aagaagggga attaaagaac atgatgaatg aaaagagaga 480 agggtgatat aatgtaaaag aagatataga taaagaagaa ggagataaat gataggagaa 540 600 aaaagataga aagatagata gaagaaaaaa aaaaagagat ggatggagaa gattaaagtg aaataaggag atgaaacagg aataatagag ggagagaaga taaatgaaaa taagagagaa 780 840 attggaaaag aaggagagaa tgaaggaaaa agaagcaccg acctcctcct cctccgaatc cgcctccgtt tccgccattg ccgccttcac ctcctccgta tccgccgtga ccaccgtggc 900 tgccctttcc accgagecet aggecaagae egaagecaaa geegeegeee ttgeeettge 960 ceteateete gecettteea tgtecatage ettteeegtg geegaggeea aateeaaage 1020 ccttaccacc acctttgccc cctccatgga cgccagctcc aaagccgaag ccgaagccga 1080

atcccttgcc tttgcccttg tcatccttct tgtcgtcctt cttgtcatca tacttgtcgt 1140 cgtacttgtc atccccttg ccgtagccat agccgtgatc gtgatcgtcc ttcttgtcgt 1200 ccggcttgta gccgccgtgc ttgtcatcgt ccttcttggg ctccccctc gcacgaagga 1260 aaccgccgtt cttgtcatcc ttcttgtcgt catgtttatg gtcgacgatg tagccgggct 1320 tgccctcggg acccttcccg tggtgagggt catagtcagg cttgcccttg ggattctttg 1380 agtcaaaccc gttagacgac ccaacaccga atccaaagcc gccggaattc ccattatcgt 1440 ctttcttatc gtcgtccttc ttgtcatcgt cctttttgtc gtctttcttg tcatcatccc 1500 agtegteatt gteccagtgg tegtegteee aateateate gteettettg teateateee 1560 cctttacccc ccttttatca tccttcttat catcttcctt tcccttcttc cctaatccaa 1620 agccgccctt tacaccgccc tcgatgccaa atttgtgctt gacaaccggc agcttgccca 1680 gatggcgggc atcaacactg agatcacgag ctgccgagac gttagatctt ctgtcattcc 1740 actactaatg tgtgcacata ctctctaggc ttctcacctc cctctcaacc ggggccgtga 1800 gggccagggt tgagagcgca agaacgagcg ctggggttat ggtaactttc atttcggcaa 1860 tgccgcaatg cgaacagaat caaacgaacg agtgtctcgg ttagagatat gccgctccag 1920 gcaaggggct tccgttcgaa agagtggtgt tgttgttgga gagctggatc tggcgcggaa 1980 ttgagagatg ctttatagtt ctcgcatcgc cctttggcct ccaggaagat gcacgatgga 2040 gggccgatac tttctccatt gtgacccaga ttacgcaatt ctctactccg gacacatctt 2100 gaaaaccctg ccgtggcaat tttgacccca gcaaagcaat catacttgtt catgcacccc 2160 agattgtttt tactccccgg gagcaacatc caccaaaagt cccatgtatt gttttgaaca 2220 attitigtice caacaggaac ecectecect titigageega ecagaceece titicaagea 2280 aggittgcat ticccaqcct tettitggcca attgaaagcc ccccccctt gcgttgcatt 2340 tgggccggtt taaaattcat gcttccgccg gcccaccact ttatattttt gcccccccgg 2400 ctttattttt tccctcctgc cagttttaac ccttccgccg gcccgcttca actcctctct 2460 cggaggattt ccccatatta ttcggccctc tcaatgaatt tccatttttt tgcttaattc 2520 geoectttee ettttttea tecatataaa ggteetteeg tttetteeeg gagtetggtt 2580 tttctttttt taattccacc cattgttgga atactttaan atgagggtan aaaagggcga 2640 2659 aacccctccc ccccctttt

<210> 747 <211> 5172 <212> DNA <213> Aspergillus nidulans <400> 747

taatgtatee ttgggetega tetgettggt aaagagatgt geagtttaaa eeeettttea ttctgtttgc tgtcgtgggt atctgtctcg cccgatgtgt gggggtgttt cccctggcga aagccatcaa ctggtttata cggtataggg cacgtccacg gggagtggaa gtggctgatg 180 agttgccgat cgcttaccaa gcaatgcttt tctgggccgg acttcgtggt gctgccggtg 240 300 tegeaeteae ageggaeetg aagggtgega atggaeegge ettaegegee aetgteettg ccgtcgtggt catcactgcc attatctttg gaggcaccac ggtgcgcatg ctatatatcc 360 ttggcattcg gacaggcgtt gttgaagaac tcgagtctga tgatgagttt gatatcgaag 420 tetetaatgg aggeaettae tataagegtt eegataeegg attgggatae acaeeeegte 480 gtgcagacaa tattccgctc gacggagtgt cgcggaggga tctcgaccgg aacaacagtt attcgagtgg caacagccgc cgccctagtc ctccctcatc atcgcgcccg agtagaggac 600 660 attctcgaat gtactcagat gcattcggcc caaaagacac tcaaacaccg cgcgaccgtt 720 caacaaccgc tactctgctc ggcaaccgcc ctggaagtcg cagcgacagc gaggacggta gtgagaatga gtatggcttg aagtcctctg gaaagcgccg agcattggat cacgatcacc ccgacgcctt tgaactcgac attgacgata tacattccga tgacgacctg cctccggctg ccccaacgcg aatgcgccga tcaccgtctc aacctccgca gcagtcatcg tcatcccaag ctccacaaga cagtgtgtct ccgtcgcggc gcgaagcggg gaggagtgca cgagaggcga tccgagattt attctctggc ggaccctccg gggatcacgt cgcttggttc cgccagctgg 1020 acgaagatta tatcaagccc cgtctcctcc tggaccagtc gaaccacaag ggccctggcg 1080 ctgtctagat ataggcctta tgtatactta tgaatttctc cttgtttctg cttgtcaccg 1140 acattgcttt acttcttcga gctaatggta gttatatctg tattctcgat ggttttacct 1200 gcgcattcag accggttcta gtctgaaagc cgtaggtgat aggtactgta actgtacgaa 1260 tagagtagaa agactgaaga taacgctgct ttcagagtgg ggaagaatat atggcgataa 1320 gcaggcttct tgttcaagca atctagacgt cttcatatct gcctatcttt attgcccgac 1380

ttacctaact cccctccccc cccacccttc ctggccagac aaagctctcg accttcagac 1440 tageegaege tategegtet tateattgtg etgeaggteg agaatgetae teetteegag 1500 gcccgataag aacgatatgt cgggtgtcga atgtcgatcc ttgtcccttg ctgtgcacct 1560 ggctcgggca aaggtcaagc tgttgacatg cgtcatgcac catgggatct ttagtttcat 1620 ttaagctctt cacccctcac teggeacttg tgteteetga caatetggge tgagtetgat 1680 tctggtgtcc tgggaactct atacaatatg gtcaacctcg agaagaccgc gatggccgct 1740 caagcgaacg atgagcccgc tgccgagcga gctgataccc agttgctagg tattgtatcc 1800 ctctcccttt gctttatagc aaaggaggcg tcagctaata agtggaattt gaagcaacct 1860 tgggttacaa gcaggaactt cgacggcatt attcgaccgt ccaggtcttc gcaatagcgt 1920 tcagtatcat gggcctgttg ccgtctattg cctcaacttt atcgttttct atacctgctg 1980 gtccggtggg gatggtttgg gtatgctacc gctcacactt acatacaaat gttagctgac 2040 ttgaataggg tgagatttct cagcgaatta gtgcaccggt cattgtgatt gatttgaggt 2100 tcaggatggc ttgctgctag cgtgtttatc ttcattgttg gacttgctat ggtatgagcc 2160 ttttctctat ccactcaggt gtcaggatat taatgtttaa tgcaggctga tctagcatcc 2220 gcgatgccaa ccgcaggtgg cttctacttc tgtcacgcat tatttcaacg gcgaaaaatg 2280 taataggeet etgagetttg ttgttggata tageaatace ategggetta ttgggggtgt 2340 ctgttatatt gactgtgagt ggtcactgat gtagattctc aagctgccga ctaacggtat 2400 agacggattc gctactatac tgctcgttat catatccatc gcgcgggatg gcaactggtt 2460 tgcctcccga ccaatcgtct acgggacata cgtgggttgt gtggtggttc acggcctcag 2520 tgttacattc ttcgcgagga tcatgccaaa gattcagtcc gcatgcattg tgactaatgt 2580 tggcctcgtc gttgccaccg ttctcgcact gcccattggt aaagcagtaa atggcggaac 2640 gatcaactca ggttcatatg tctttgggca gttggaaaac tatacaactt ggccaagcgg 2700 atgggcgttt gtgcttgcct ggctctcacc tatctggaca attggggctt ttgactcctg 2760 tgttcatatg agtgaggagg ccacgaatgc tgcacgtgcg gttccattag gtatactatg 2820 gtctagtgga ctatgtggta tcttagggtt tctttcccta gccgtaattg cggcagttat 2880 aaatacagac ctagaggctg tgatgggcac tgcatttggc cagccgatgg ctcaagtagg 2940 taatgcatac gctaattgat ccttgtcaca ctgaaccatc tctacagatc tactacgact 3000

gcttggggaa agctggtgcc ctcggcttta tggccgtagt agcagcggtc cagttcttca 3060 tggggctgag cttggtatct ccctccccgt cccaatcact tcctcaattt gatcccagca 3120 aaaatagacc gctaaccgca tatttgtagg ttgttgccgc ctcccgccaa agctgggcct 3180 tetetegtga eggegeette eetteteet eettetteeg eeatgteage aaacgeatte 3240 gttaccagcc tgtccgcatg gtatggggcg tcgtcgcggc agccataacc atcggccttc 3300 tctgcctcat caatgcggcc gccagcaatg ccctcttctc tctcgcagtc gccggcaatg 3360 atctggcttg gctgatgccc atattgtgcc ggctagtttg gggcgaggac aggttccacc 3420 cgggtgtgtt ctatactggg agactcagca agccaattgc ggtcacggcg gtggtttact 3480 tgtcttttgc aattcttctt tgcatgtttc cgacactggg cccgaaccct aatcgtacgt 3540 atccctgact agctccctgc tctgtagcaa gtgtgagcta actgatcgtt cagcggacga 3600 tatgaactat accgtcgtca ttaatggggc tctttggggc ggcgctgc tgtattacat 3660 gctgtatgcg cgcaagacgt ataagggtcc ccaaacgaca gtgcacggct catcgtcgcc 3720 atcctctgca gcttccacga acctcgagcg caaggagtta gaatcggagg agaaagtgtg 3780 tacataactc tgaagcagat cggatgtcat ccggcgtgcc ggtgagaggt ttttgtcagt 3840 tgcgttgcgt tggattctgg ctgtgagtat tattgtcgcg caaagaataa gtaattttag 3900 ttgtgcctca ttcgagttca gaatgagctc ttacgattac tcttatctac tcagagtata 3960 atagcgaggt actggtggtg gcgatagtcg cgacggtcta aagtgggcta agcaagtacc 4020 aaacggcaat ggcaccatgt cagcggtccg catgcgatta cttcagagct gatcaaccca 4080 tettetagga ateteetgge attgetttae egteegagte etteteettg gaggtgaact 4140 ctgatctctg ttgtagtatg tacttaatag agtgttgtag cagatcccaa gtgggggttg 4200 ctgtcagaca tggtcccacc cagcggagtt cccccgcagt cctttgatac tccgcaacga 4260 gtcttgcgta aagcactttc agcagtattt ggtgctacag cccctgtaca tgagccatgt 4320 cacgccacca gtcagaggac cctgggagac catgctataa aggagagata tcgccactcc 4380 agacctgata actagatttg gtgtcgaggc acagaatggc ctgatccaga ctggtaggct 4440 tactctgcgt gtgccagcca atgctccaaa ccaggccggt tctacgatgc cgaatctact 4500 ctaatatcac tcagatcagt gggtctggcc cgggctgtcg agctcccaag gatgacatcg 4560 tegacecaat gtetggeece aatggeeatg gaageegaaa ttggeeacea ategeetgee 4620

gtacgctctc ggcgcgtgct ttagctgccc ggcaaaagca ggaatttcgg acgatgtcct 4680 cgtcggcttg tgtggattcg tttcgttggt ggacccatcc cctgtatagt gttgcgttgt 4740 gttgcactgt tatagccagt gtctagaggc agtgctgcta cacccctcat tctcttgtgg 4800 tataaaatggc aagaggctc tcacgaagct tgtgaattag cttgtctctg tacatcctct 4860 cagttaatag tttattacct cttctatcaa tctcatttta cacactctca tcccaaggat 4920 gtctgtcccc gaagtgcaat gggcccaagt ggtcgagaag gcaggcactc cttcggttta 4980 caaacaggtt cccgttcaa aacctggacc agacgagatt ttggtcaaga tgccatattc 5040 gggcgtctgc catacagatc ttcacgccat gaagggcgac tggcctctc cttcaaagat 5100 gccactgata ggcgccatg agggcgtcgg tgtcgtcgt gcttagggag aattagtcaa 5160 gacgaagatt tc

<210> 748 <211> 6375

<212> DNA

<213> Aspergillus nidulans

<400> 748

gaggataaga taaaagggag ataggtgaag atgtgggatt cacttttgag atggagaacg atatgaggag aaatacaccg ggatacagag tggctcatgt tataacttta gactctcagg gtctatggga gagattcttt taggagagga gttgggaaaa tatgatgagg aaaaaaggaa aagatttatt ggacgcccgc ataatcgcag taacgggata taaattaagg gtagatagac 240 egggtteted aatgggagag agecaegtga ceatgggtga eaacreqteg bygeere ge-300 ggaaaagccc accaccagaa agagggatgc ttttgaaaat ccagggttca tattctggcg 360 agccaagagt cetetaettg gegaatggag gttegageea egaeeteagg geageegegg 420 cccttaggtg agcatttgct agaaagccaa tttccaatct tctagataaa aagtgtgtgg 480 taattaccag aacatagagc accttcagag attattggct aatgatgcat tgtccgagat 540 tggctagttc gcagatggtt ggctgctaca tggatcgcaa tccagcagta tagttgccct 600 ctttgcacac aggccatgac agacacccag cgacagcact caaaggaact atgcttcatc 660 tgcctgagat accttatagt ctcaacgctc ttgtttgccc ttttcctcca aatcctctcg 720 taactttegt gatttegegg caetgatggt gaacegegaa tatetaegee tttteeetgg 780

tttcaactcc ttttatactc atatggcacc tggaaacggt ttggtgattg cgagtatcac 840 gagctaggct ttcaaggtgc ttataagagg tcatagcctg gaagctgtca ttgccgcgtt acgggcatgg aaacattaca tgagaggacg atcgtcgcaa atgggacacg aggaagcaat 960 gaaaacagca aaggatgcaa tacctagctt cctaaacaca gtcgaatcgc atcagcttcc 1020 tgtcattcca ggcgctttca attcttcccc taagtttatc gccatgttcc aggccgaggc 1080 gcttgtcgca atccctgtag ccttgcttgc ggtcaagcaa gcaatcgaca ggattgatct 1140 agtetacagg gtatteaaca gaaacteacg attgeeaaca tggeaaatat ecagggttge 1200 gagcgggacg gctttggagc acatgtatat cgctttgttg agtacgagat gcgccagaat 1260 gcgaacgtaa gagcaaagag ccgtgatcaa aggtgccatt atttctacgt atagagatgc 1320 gacacagatt gataccetgt cttcgagget atgggeegag ettgeeetet eggteetgag 1380 tttgggggtt atcgtcacga gcttgatgct atcagtatgc gaatgaaggc agacaggaca 1440 ctcattcaaa atatgccttt tttttggaca tacagcgcaa ttccacctcc tcattccgac 1500 gtatgagece tatgttatag ageaacetgt attatteeae gaaageetge tteegettat 1560 catcaccggc cagcgacatc gctctgtgga ccctgtcttg ttcaatcttc gtagcaagcc 1620 gaaggactta catctgcaat gcatcggagt gttagaaact aggacgaatg tcattatcga 1680 agtcggaatc cttggcttca ttggctgctg cgtaggcggt atggcgatcg gctgtgctgg 1740 tgctgtattt cctccttgta ctctttgacc attaatagag tggagatttg agattaagca 1800 gagetagtea geceetgeea tgeeeetgta gecacegaet acaaegaegt agtgettggt 1860 tgtatactca agatgaatag ctcaaacaaa ataatccgaa tatttgctga cagtatatta 1920 aggacaaggg tcgttgttga gaccgtgcaa tgaagaaaat ggtagcagga atgaagggat 1980 agtagagaaa agggagatga ggctgaggca gtttgcgtac ctggttaggg tatggttggc 2040 ctagacgagg tgctagctgc ggggtaataa acatgtcaac tctacaaaat taactcacca 2100 gtattaatat ccatgagctt atactgtctc gtaatgaacc cttaacgaaa gtggtataca 2160 gtctaggctg tgccagacgg gggcttaata tattcgctaa tcttgacacg gagcacgctg 2220 ccacctcttt gcaactaatg cgcccagtgt tagtaacgat tcttttagga aaaggctgta 2280 aggagggcga ggagttatcg gacaactatt tctaggtaat gacttccatc aatcagaatc 2340 caggtgacca ctgaaacttg attgactggc gaaaaatgta cgatcagacc atcctctacc 2400

ggtcattacg gagcgagtgt atgcccaaaa gagggaaatc aggtgttgtc ttctattttt 2460 actgattcag ccgcacggat agtacaaccg gcacaatgcc gaggatataa cccttgagat 2520 ataacctagg gcaagcggat tccgttcatt gcgggtagta tgtcgccgga ctgtggcaag 2580 gttgcagagc gaataataga tcgaaggaaa tggcttggtg ttggttgttt tagtcaccag 2640 acaatggggc aagaccctga tctacgagtc aggcgccgac atggtgccaa gctaacccac 2700 gaggtaggcc cacagggaca cataattaca ggggtagtag gaaatcttct gctaaaatca 2760 ataggagcat atgtggctcg gggaaccgta cagaagccca atgggaggtt tgatggggct 2820 ctgtaatttg gcctgcctct ctattggggc cagctaatta cggggcgccc aggggtaagg 2880 tcttggacgt gctaaggctg tatctgggtt aaaccatgtc gaaattactc cgtgcctgca 2940 ggatactaaa gttccattgg accaaaatcc gtctttacgc aggaggggtg aggtgaacgg 3000 atattggggt tacttgtatt ggcaaaacta gcctgtgcac tcctttgtta aagcagcact 3060 gaaccctggc ttttgcaagc agtgctggtc accgtcttct gcaagatacg ggggaaagtc 3120 cccgtctaga ctgcagtgtg cttatgttgt cggcgaggcc ctaggtgctc cctattctga 3180 caagcactcc agaagaaggg cagcagtagt gctagttctc gtgtaaagaa gctgcgatca 3240 acatactgta cttcgctgct ggtttgatcc gacacaggct ttcagtctgg aataaaccgc 3300 cccgcctctg cggctcggcc catttgtaac tcccatacgt aattgaagga gcctcatggg 3360 agaatagtca ggtagcgagg tagaaggcgg ggaacccttc atgggcttct gccagctgtg 3420 gacagatcaa tttctctgtg cactcgtcat tattacgggc gactaaagtt tttttcactg 3480 acgtaaagtt ctgcccgatg cagcgcaata aacaacaggc gggctgtgca ttgccaccct 3540 gggctataaa gtgcccggac ctagattaac ccctgtctgc agcatgtagg gcgtcaaata 3600 cctagactgg tcccctgacc agtgcactga ggtcgttgct cgactactac acatatgctt 3660 ggcgcattaa atgcccaact tgtcctacta atcactatgt ccagactcta gaaacctgca 3720 ggatgtcaat gtcacctcgc taagaaaaac ctgaacataa tggccacgac tggagtggta 3780 gtcaccgtcc aggtatcacg agagtacggt tgggactatg taagtatccc agttcaacgt 3840 gttcagccta ttatgtatcc gatagtcagt gattatattg aacaaaaaac taccggtcta 3900 gttcagtaac cgaggattgg gctgtatttc ccctctctgg ccggctgaac cgcagggctc 3960 cgcatgaggc agttcagtaa atgagccatc ttgctcaacc tatccttacc cttggactaa 4020

atagtttggg tctgatcagg aaagccacag gcttaggaca aatatcaccg ttagagaacc 4080 ccatgatgtg gattatcaca aaccataaaa gatgcacaat agacgagatc accgcaagaa 4140 agegeetate catattigee etgetteaeg eetecaaate eattigaaae eeetttaeg 4200 ctttggctcc actatccatg gtttgatcat tgtaacgagc tggtataatt gatggttggg 4260 tattgtgctg atggacttga accttatttt gatgcagcac aacgttgcat cactggaatg 4320 aagtcagtac cataatacac actataatgt tggctcggag tatatctata tctagcatag 4380 cttgggtttg aatagcacac atcctgttca ttggatgata ttgtctagtg ctatctcaga 4440 ttcaagtcaa tggaatggac cactgagaac gaaacaatat ccaacagtgt tcatgggcga 4500 gtcgtacccg tgatatatgt aattgagaac agatgactac gactgaaggc gtaagaacag 4560 agaagataaa tagggcacag agccacggaa cttgatgcaa atccaacttg ctcacgagct 4620 acaacaatgg ctctacttga aagactttgt ggtattcttg ttcctattct acttttgaat 4680 gttctgaatg tacgtggaca tgtcatatac gggagaggeg ctccctccct cccggtcaac 4740 gccgcttcta tatcagacca ggtcccatct gcccttgtcc gccgtcaatc cgtgggagac 4800 gtagagctgc gcattettec ettgggagca teaattacet ggggtttgaa gteggagaet 4860 cacaatggtt accgcaaata tcttcgggac cagctccgtt ttgacggctg ggaagttaat 4920 atggttggga gtaaacacga cccagattca acgatgaagg acaacgtacg ttcaccactt 4980 gctataattc agtaattgct gctagcggtg cacatgtctt ttctgtcttt tgaagaggat 5040 ccctgctgat agcatgttgc ggaacacagg acgtcgaagc gcactccggc gatacaattg 5100 acatggttac cgccgcagtg catggatcgc tggcgtacaa gcctaatgtt gttctgatca 5160 acgcaggtac aaacgattgt cgcctaggca ttgagatacc tgaggccgga gcccgcatgc 5220 gctctctgat agagacactg gtccaagcag aggacatgag ccgtactttg attgtccttt 5280 ccaccctgct tcctactgaa aacgcccagg ctaaggctaa tgtcccgagc gtaaatgcgc 5340 agtaccggac gctcgtgaaa accatgcgtg aggagggtgt ctccattgtt ctcgcggaga 5400 tgaacagggc agacggctgg attgctttcc ccaacgactt cgccgacgat actcatccga 5460 acgaagctgg atacaagaaa atggcgtcta tatggcattc agcgatcaag gatgctgcga 5520 acaagaacct cattgttgca ccggcagcgt ttggaagccc agggggaagc gatgggcagt 5580 gcgagaggga gtacggaact ggtgtttatg ccggtggatt gacgcaacgt ggcagtggag 5640

aagaggatgg gatctactat cacgacagcg aggcaatggg tgaggtcttt actgtctttg 5700 gcggagaaaga tgactttgac acgttcttct tcgcacgaat attcagtcgt gaccgcgacg 5760 atatgctcag atggactaag gccgacggca gcgtcaagta cctccttaat cgaaatattg 5820 accgggcagg cacaaagttc gtcgatgagc acatctctat gaccgttgaa gataactgta 5880 acccagctgg tgttaatttc atcgatgtta atggttagct ttgccccgtt ctttggcttg 5940 cctcgtcttc tcctttcaag ctgttacagc actgacatca ctagctgatg gtttggacga 6000 ttttgtttgt attgcaaaag acggaacggc ctacgcaagc atcaacaccg gtgaagaccc 6060 tcctaggttt gtgtacaaag ggctatggaa atcgcgcgag ggctatggtc aggccaatgt 6120 aaggctggga gatgttgacg gtgatggtag ggccgactat tgcgtggttg ctggtaatgg 6180 ggatattacc tgttggcgga atggatggt tggtcagtgg tcttctacac atcttcgata 6240 aatggctcat caccggtaaa ggaatagggg atcttcgagc gaggacatca 6360 atggcgatgt aagat

<210> 749 <211> 3988 <212> DNA

<213> Aspergillus nidulans

<400> 749

catateteca ageaaggtga tategtetae tgetegeaaa caagggaaca ggetgeagea 60
tegaggaggt gaagegaete tteeagtttg gtttteegea eeceaagage tagtgettte 120
aaaagaaata tegaegaget gateatgggg ataagaeteg cattggaaga cacegeaggt 180
tageaagage aactacatgt gagaggattg tgeaageace atetattaet tettegatga 240
acteatacte atteetaete atattgagtt gtegtgeatg agagaegaae gtegtgteaa 300
ttatteeteg egagggegtg teegaeagea egeegegeae gatteeetgg acacegagag 360
agttggegaa aactettaag tattggtatt eaatgegeag aatateattg tagegagage 420
etgteataaa ttageetaea ttegeecaaa eacetaggaa eeceaetetg aatgtegtgg 480
atategtett teeatgetge aagetgggee tteeaetget etagtgatge gaaatteata 540
tgetggetge eageactett ageegegtg aagaatgttt etegtagatt eegggteaat 600

660 cccgttaaat tcacccacga aatcataaat ctcgcccaat cagggtcgac ggtcttaagg ctttcgagcg gctccttgcc ataatccggc ataatggacg tgcagccaat cctggaagcg 720 agcaggtttg tagtcacaaa caacagcgac ggaaggcgct ggcgtctaag ctccagatcc 780 tgaagataat tctcgacatc aggacctgcg attgtgccct gtcgttttaa catagttata 840 tggtctctag ggttgaacac gccaagctcg tgtgcgagcg ccagtgctga gctcacgagc 900 atccaagaca tccggtctga ccgtcttgtg ggctcgacga cgtcctcctt ccaacggtct tgcatgggac attcctgtgc agtcgaaggc ggatctcgca aggtaaacgt tgtcagcatc 1020 caatccgaat cccacccgtc cgcttccaag gggaagtgta gagccagggg ataccactcc 1080 gagaggagca agagggcctc aatagtcgat atatgtctag ttttggcttt tgacagtttc 1140 tcttgcccga gcattatccg caagatgaga tgttggcaat gctgccataa cctgttgtgg 1200 atgtaaaatc ccctggagct cccagagggg ccgggtaggg tatgatatcg ggcggatatc 1260 attaggattg tgcagcatag aaccggttct tgagtgataa gccagtagtg tgtatggtgg 1320 tctgcgaaga agtctgtcag aatgggagac gttaccggtg ccaggttacg aaagaacctg 1380 ccagactgtt agaccagggc cttcttcggg gcggccaact gaccagtccg tatacgacag 1440 cgcctcctcc gccgtgaacc agcccatctt gacaaaccgg catccctccc agactctgag 1500 cacattatcc tcggacccga tatcaaaggg ggtgttcgaa tcatcaagag ctgtagcttg 1560 gccattgcca acacgcgcac tcgagcccgc atgcgccgcg gcgtcaaaca gaatatccat 1620 ggcatcgttc ccactcgcaa cctgtttctg caacaccgtc gctgagatac actcgccgtc 1680 ttccaacccc gcagaagccg atgctgaagc tgaatttgac ggtgatggct cgtggacgtc 1740 atcaategee gteataceeg tageegtage tgeacettta agaegtteea teceaegagg 1800 ttcgtattct gaagaagcat ggcgggcacc tcgagttccc tttttcccag ggtgcttctt 1860 tctcgaccaa ggctgcttcg atgaaaaccg gcactccaga tccatcttcc gacaccgctt 1920 acacggetga tgaagetegg gttegggete acatttgaet ttteteegte gacaaggaat 1980 acatgetttg taggeteget ggaaagtgta ttgtgtegat geeetgette gtggaggteg 2040 ttgcatcctg tctttcttgc cctgagtctg tagcgataat ggcactccga tttagagcag 2100 ttgttaggat tccggagacg aacgccgata tactccgcca gatagacatg agactgcagg 2160 tgggaagttg gggaaagctg cagtggagcg ggaggggggc tcttggagca attcaaacag 2220

agettettat aggetgetge agacagaaat tggeggeget ttteetgeee aagteaagge 2280 tettetttee ceaggitett eeeggitaet ggietgaeta ggiaeagaet eetteeeeta 2340 ctattcgact tctagaatca ttctatattg tcacgatatt tgcagctgaa acaattacag 2400 gaatggaatt tatacgagat ctttactagt aatccaagcc caagtctatt tacatttttc 2460 tggccataac aactagtact tgtactgtgt tactacactt ggccagtcac ccacccagaa 2520 tcatccattg cagtcatece actecaagte etaaegaaea gagteteaag ateetgegee 2580 caaattgagg gtgatagggg gaaatatgat caggaaaagc tgaaaggaag atctttaatt 2640 ttcagcgaac gctccatcag tagcttacta caagtgtttg tatcccgagg ccgaaaagct 2700 ccatttctcg agcctaacgt cattcttgat tactatggta aaagctcatt gtgtctgggc 2760 ttcacaatca atgaacgacg gcattcagag gacccagaag cctgaatctc aagaaatcag 2820 gacccaggct taggtgggag atgtaccagc tagaccaaat accgaaaacg gggattcgca 2880 tcaccetetg etgteacate aatgeggaea tegteagtaa eeggeeeata aageetgtet 2940 cgtatcttgt tctcatagct caacttcaga tacagccccc ctgccattag cgcaatgcaa 3000 cccgtcaaag cgcacccgat agcacagccg cggatataga ttggactgtg gaatggtcag 3060 ctagattaaa taactaatta accgcggcag ggctacttac ccttcggaat caggaaagac 3120 agtgctactg acgaaactcg aacactgtcc aaacacggcc agtaaagcca tgccggcgcc 3180 tttcttcgaa tcgccacctt ggttgttgag caaccaggtg atattgatgc atagtgcagg 3240 aaagacgccg catgttgcca gccagacgcc gaggtaccgt ggccagacct tgttctcatc 3300 ttggaccgcc gcaaggatca agtagccgat catcccgatt gtcgaaaaga acactataac 3360 aagccctctc cgtccatatc tgtcggaaag taatgcggct accacgcaaa acaagaacga 3420 gacaaagtaa gggggtgccg agagaccctg ggcgttgatg gacgtatacc ccatgtgctg 3480 gatgattgtt gggaggaagt tcgagaggcc tgcaaacgag aagttgcagc agaagtggat 3540 tagggtatgt acatagttct tgtagtcggt caatccggcg aagacctggt gtctgtcgag 3600 tttgtttttg gctgtgcgat cgaccgtatg caggcgtccg cggccgtggt ttgctctgat 3660 teggagagga acttegeggt geegggggag teggggagga agaagaagae gaetatageg 3720 aatagcacag tgggagcgcc ctctgtttgg attagtcccc tgcacggtat gactccgaag 3780 cagtgacaag tgatagctgg acttaccaat gatgaagaga aaccgccatg attcaagggt 3840

cgagtgtctg atatgcgtaa cgccgtaggc gagtgagctg gcaaagcaat tggcgatagg 3900
agacatgcct agtagaatcg agacacgaaa cccgagctct cgtcgttgat agaataacga 3960
caagaagtag ggggccagcg cgaaagcg 3988

<210> 750 <211> 2670 <212> DNA

<213> Aspergillus nidulans

<400> 750

gcgcgtggtc aatttgataa aatcaagcgc gggaagggcg tgggaacaca gacggactac 60 aacgctaatt ccgctttcat cgatacaacc gaatacttca tgaataaaat tatccagaag caggagatcg ttccgccctg gatcgagaag cagcaggaac ttgcgagaga gatagatcgg 180 ttccgacagc gtttgagagt tgagtggaga cggcatgcag cgagagtgat agccagccaa 240 300 ggagggtcgt tggagacgca gatgcgtaag gcggaggcat acgcggctgc agaggcgcgg 360 cataccgctc gactcgagct agagaaagcc ttcaatgata ctaagtcttc aaacaacaat accagtacca agaataatgt tccaacttcc cctccagcct cagatccttc ctcaacggaa 420 actetecace taccacecet gegegacteg caatacattt ceaacgaacg etcatteett 480 540 gaactttcgg ttaaaacaat caacgcacta gcccgctcct acaacctgca agccccaccg 600 gtagcgcaaa agccttatct caatctcgag cgtgaactgg agtcgtgcta tgcggatgtg gcgccgagtt tagcagatga gatcaaacgc cgtgctacgg agaaagtacg gcaaccttca 660 720 tataccgggg caaagacggc tagtgtactt agtcatctgg ctacgtctca gacggccagg 780 gtgtatgatg aggatgaatc gaaggggtat ggtttcaagc agttctggca ggatctgttt tcqaaqaaat qagqcqqqtt aqcaatqtac aqtattatca qaattgaqqt ttgaagattc tggttcacgt tatattatga ttatagaact cgatatgcaa gcctgtattg acagacttga 900 gcgaattgta aatagtaagc acataattag aaccacagaa caaaaaaaca caatgtgccc cacteegata eteagataac eageegetat egeaatetag ttatteteet eeteateetg 1020 attggaggtc tggagactac ccagaaggaa gctcgactca ttctcaggga gctcatcctt 1080 gtctccgaga tcgaggtcat tactatcagc aaagccaata aagcttgtcc cggaggtcgg 1140 aatagggccg gagtcggacc tagcttgcct atcattgctc tcgaagttct ggagactgcc 1200

aaggagaaaa ctcgagtcaa actcaggacg ctcctccgag tcaccgagat caagttcgct 1260 getgecageg aageecatga aactegaeee egaaggeaaa eeegagtegg agteegagte 1320 ggagttatee cattegtegt ttgegttgtt gaggtgetgg aggetgeegg egatgaaaet 1380 agattccagc tcggggagct cttcatcatc gccaagatcg agctcgttgc tgccggccaa 1440 tcctatgaaa cttgagccgg agggggagcc ggtctggagg tcgtaatcat tagtactgct 1500 ttgctatgct ttgctatgtg tactgtgact tttgtagtga tcggcttata tttagcggga 1560 tcataaggag gtcatacaga agctgcggtt ggatgttagc tacggacacc ggcgagatct 1620 atctaagacg tacatgaaat ttgggggagt tcagggaccg tagaggtgct ggcggacgta 1680 aggtcgccga ttgagggcgt ggtggccgtg ggcagagctt gggcgaggcc tgtaagggcc 1740 gcgataaagc cggcggaata gatggagaaa ggcattatgg acaatgatca gtctaaagag 1800 acagaggatg ccaatgtttc gacagaggtc aaaaggagag acgttagtta gggggaaatg 1860 gggaacctgt gggtgacagc catcctttat atggggtcga ggggtgatat tctggaggat 1920 ccagttccaa gatgaattac tccggattac tttgttgatc ggcaatggaa tcgacgtgat 1980 gaatcaatga cgaggttata tctcaaccaa gatcttctta ttggatgaat ttggtgaatg 2040 ttcctggaga aaaggcaata atataagggg ctagtttcct tcgtgcctgg ttttagtacg 2100 gacaaggtaa cccaccctcc gatcactagg ctgatctcat tattcagaag tctcaatgtc 2160 agaacgcgaa ctcgcatcga aaatccataa actctcgagt gctcgtttag gctatatcca 2220 atttgcatgg ccatatcaag tacgatagag aaagggttcg agttcatcgc accttccgtc 2280 tagttgagat gtctatcacc gtcgaaatca aaggtcaggg tgttgtctcc agctgtgcga 2340 tagccacaaa ttatctctat ctcgcagttt attctcacat tacaccgaat gggggcgttt 2400 gaccatgggc aaaaagctct ctgttgttca aggcgttaag tcagagaact acacaacccc 2460 agggaatgcc gttaatgaga tctgggttgg agacaccgag ctcatctccc gtctcccatt 2520 tggctccagc gacatggatc aagccagctg gccgacgaac ggagtgccaa agatcccctg 2580 gcataacttc atcatcccta tgaaacgaga cctcgagacc ttgggcgcct acaactccaa 2640 cctgcctctt gacttcagcg gcattgctcg 2670

<210> 751

<211> 2523

<212> DNA

<213> Aspergillus nidulans

<400> 751

ggtagcaaga tgtaaggcgc tccgaactca ccgccaaagc tgatacttac attcgttagc 60 gtotocaaat ogcacgatoa atttgogoag attgoogttg acgoagtgot ttoogttgot 120 gatctcgaac gtaaagatgt ggattttgaa ttgatcaagg tagacggaaa ggtcggtggg 180 gctcttgaag actcactcct tgtcaagggt gtcatcgtgg acaaggattt ctctcacccg cagatgccag atgaggttac agacgctaag ctggccattc tgacctgccc attcgaaccc cccaagccga agacaaagca caagctggat atcacatctg tggaggagtt taagcgcctg 360 caagaatacg aaaaagagaa gtttacagag atgatccagc atctgaaaga ctccggggcc 420 aacctggtga tttgccaatg gggtttcgat gacgaggcga accatcttct tctgcagaac 480 aagctacctg ctgttcgctg ggtgggtggg cctgaaattg agctgatcgc cattgcaaca 540 aacggtcgaa ttgtgcctcg ctttgaggat ctcagcgcag acaaacttgg tacagccggt 600 cgtgtgcgcg agatgacctt tggtactacg cgagagaaga tgcttgttat cgaagagtgc 660 gccaacagcc gtgctgtgac ggtatttgtg cgaggaagca ataagatggt aagatcgccc 720 780 atctatacta gaccgtgcat tactgattta ttactagatt atcgatgagg caaagcgatc actgcacgat gctatttgtg ttgttcgtaa cctagtcagg gataaccgcg tcgtatatgg 840 tggaggtgca gcggaaattg cctgctcaat cgctgtggag gatgctgctg tcaaggttcg 900 tggcgttcca gtttcctata gtcatttact gacattgccc tcagagccct ggaatcgagc 960 agtatgccat gcgcgcgttt gcagatgcgc ttgatgcagt gccgttggcc cttgctgaga 1020 actccggttt gagcccgatt gaaacactcg cggccatcaa gtcgcgccag gtcaaggaga 1080 acaactcccg gctgggtgtt gactgcatgc tgactggaaa caatggtaaa tactcttgat 1140 gaagacagta gaattgatat tgattaggct acagatatga gagaacactt tgtcattgat 1200 ccgctcatcg gaaagcgaca gcagttgttg cttgcaactc agctctgccg catggttctg 1260 aaggtgagtt agatacctat gtttattgta cacatgcagc taacttgcga cagattaaca 1320 atgtcatcat ctctggtgac gaccagcagg agtactaaac ttcttgtata cgatactatc 1380 atctcgatga cctaaaatgc aacccgcttt aaccctctaa tccaacatct agatcgtgct 1440 atgacagaag gcgcaggtac atagattagt tgatgaaatg agaaatttga atagtcgtgt 1500

ctttctcggc ttgggtttta cacatgtcct tagcaattct tcccagcgcc gaatgaactg 1560 tcataccttc gcagcccatc cggtctctcc cccgactctt ctcagtttga gatgagagat 1620 tategaeget ttgagaagee eeeggeatte teeaegagae tggaaeteaa eateeggtea 1680 tacgacacgc ttccgagttg aactctcaac tcttgtgaac ggtcgcgcgg aagaatggaa 1740 tatagactat ttcgaaggat tcctaccctt ctcaggtcaa atgatgctgt agacttttca 1800 actgtcgtag cagactaggt accgcaaccg aggcatcatg ggcagtcaga ttttcaggca 1860 cggcaagtta ggttaggcta gtaccagccc acccagggga acgcctgaat ctgaggaaca 1920 acacgacagc tcaacatgaa acggtaaaag tcaggacgat gggaacaact cggagcgaaa 1980 aaggggctcc gacactgcgg acgaactgtc tcccttctgg tttcggatga acctgtacta 2040 ggacagtgct ggacacggtc tcttcatttc cgctcgccgc tcatcgaggc ctttcatgga 2100 ggatetteeg caegaaegga gatttateea ggettgttgg ettgteaete gteaagaete 2160 aatcgctcga aaggacaaga gagggcgaaa aagagtgtga cggggcgggc cgttctgacg 2220 actgaatgag ctcagaagac gaatacttcg ttcaatcctg atcctgattc tggccttaac 2280 tttggggggc ctgagtcagg ggatcgcagg ttcagtaccg ccatcggatc attgatcgca 2340 gaaagtctat gtagtgagcg gtaattccca tgggatgcac aaagtttaga gcccggcgtc 2400 cggctcgtgg gcgtggcttc agtatccgtg acagtgtaag agagtgttgg taggtacata 2460 gtatagtatg gcatcgaccg gcacgtgctg tcaaggcgct aaagtggcgg tatcttcctg 2520 atc 2523

<210> 752 <211> 2466

<212> DNA

<213> Aspergillus nidulans

<400> 752

cgtattggat tggatccttg aaagttgtag ttctcactac atagcgtgca cgtgattgtc 60
tcctgtaacc atcgagccgc cagctctaaa gcctgcaacc ggatcgagat ttccgcatcc 120
tctagacaat tcattatgac gtcctgatgc atcgaaatca gatgagggtg ggatactaca 180
atcctgctaa atgcgagcag tgctacgtac ttgactggta tccgttagca cagcataggg 240
ataataatag ggaacactca cggttgggat cgaaatctgt aacaaccatg cctcggagct 300

ttgacacgca aagatctgca atctcatgcg agtcttcaag cgccccttct ccctctaaaa tgccaccttg aatgattcca ttaatgcatt cgtagagcaa tgacatggcg gtggtcgtct ggactatatt gataagcggc cggatgagtt tccgcacaag ccgaggctcc agaggagtca 480 atgttgcaaa ctagggaagt tagcattacc aaatgccaag tgtccataaa acaaactcac 540 aagttttatg attatgattg acattcaatt gttaccccct tccaccaaaa gctcaaagaa 600 ccttggctca agtgggagga aatcatgagg cctccgccat ccaagctcgc atacgacatt gagtacaget gtagtgacae tgetgtette egttteatee ateaaaeggt eetteageet aggccatgct agccttaaag cctcgggata aaccaaggcc aggcggtaca agcatactac 780 tgccttcttt cgaattgaag gactggagtg ggaaatccta gataagacgt cgggaagcaa cgacatggca agagatgggg ttatgatatt tgggagggtg ttcaacggaa gggagattat ttgtaggttt gagcaaacca tatcctgcga gcatatttgt tagtagcaca ggtataattg 960 gaagccatat gctgaccttt ttgagtaggt tggtagcaag catcagcact tctgtctcgg 1020 gcctgaagct ctgtaaagcc ccaagataac caactctttt ctggagaaac ttggatgatg 1080 acatgacctc tagaacattg aatgatgccc aggacatatc ataaccgaac atttccaaat 1140 atgctagctt caaaagggcc gtggcctttt tgtctgggat atgtttagct aagagaagac 1200 gtgtacatag acaccgtaag aaataggctc acccatatcc tgagatcgaa tctctgctct 1260 acatteccgg aggetgtttt gaatatagte tteeteagaa eeettgtgat teeteagace 1320 ttttatcagg tcgtacaacg acttctcgaa cctaatcaga gtcgggaata agattcaacc 1380 agtgctaacc gaaagcaagt tacttacatt ttgggcgaga ttgctggtca gactacttcg 1440 agcaggtagt cgcttgacca ctgtaacttg catcaaaaag cgagggtaat gtcattgggt 1500 ccgagatcct atagaggttc gtcagaagcc atcagctcta gttaacttga ttgatgaata 1560 ctcacacttg accaaaagct agcgaagaac gccaggaaac cagtattatg tacatgtagt 1620 cttcggtcag ttgagatcag tgcggagtac aatcggaaag tacgtcagat tgcggaggtg 1680 aaagtcacgg gacaataaga cagtaattaa cttatttctt tcatccatac ttgtttgatc 1740 agtttettte tatetgetgt atetecatag tegatatega gaacaacace gecageaatg 1800 tcaatggctg attttcaatt tactggcagt cacaggtcca gtctcaaagc agccctccat 1860 cgtgcacage aageceetge cattetegge caaeggeete egateetgea teaggaatee 1920

ccgagcgatt tcgattctct ggagaagctc ttctttgcat gcatacaatc tgcagacgac 1980
aaatctgctt tagcgtgtct tgaacgtcta gtgcatcgtt tcggtctttc caacgagaga 2040
gtctcagcgc tacggagtct ctacgatgag gcggtcgcac aagaccaacc aagcctagag 2100
cggtgtctca aaacttacga cgatattctg tctcaaaacc ccgtcaacct ggtttgtctg 2160
tattcgccag ttgtagataa agtacttacc atggtgaata gccgatacta aagcgtcgaa 2220
tcgctctcct tcgctcgcta tctcggtacg cagatgccat atctagccta gtaaagctcc 2280
ttgaggccac gcccacagat gctgaagctt ggtgtgagct tgcagaactg taccaatcgc 2340
aaggattgag cccacaggca atatttagtc ttgaggaggc tttgttaatt gtacccatg 2400
cgtggaatgt gtgtctcgta accacattgc gtctgaaata gttgttgata cttttaggtt 2460
cacgct 2466

<210> 753 <211> 1126 <212> DNA

<213> Aspergillus nidulans

<400> 753

cgtgtaccat ttttcatccg cggaccaggg atcaaatccg gagggaaggt aactcaggtt 60 accactcaca tegactttgc teccaccate tttgagttgc tegggttgcc geetegeagt 120 gactttgacg gcactccgat gcgtatcatg aaagatagcg ccgccattcc ccatgagcac 180 gtcatagtgg agtattgggg ccaggcagtt cttgaaggtg actacgcaaa catatgtacg 240 300 attttcagcc gaatcacaat tgcgcataca agtagctgat gatggtcaca gccccgacga 360 acacagaccg catgccaaac acgacatata aatccgtccg cctcctgagc gagaagtaca atctcttcta tqctqtctqq tqcactqqtq accacqaqct ttttqatcta aatqtacatc gtcttcccat tttcgtcaag ctgcgaaaga agcgaataac tgacggttaa tacagacgga 480 cccctaccaa atgcacaaca tctacaatac cgcctctcga tctttcaaga acaggctaga 540 cgccctcctc ctcgtcctga agtcctgcgc cggaagcaca tgcatcaagc cctgggccga acttcaccct gacggatcgg ttcagagcct ttctgacgct ttggattcgc aatatgatgg 660 gttctatgcc cagcttccta aggttgagta tgaggcttgc gtagacgggt atctcattgc 720 tgcagagggg ttgcagtggg aagatgtcag tgctagcgct ctacggaact atgtccgacg 780 gaattacgcc ttcgatgatg tgcagaagta ccggaaactc tagacaacca cgccagaact 840
tgaagactta tacataccca cgcggacatg attattggca ttagatatag aattgataat 900
gctatcgagg tctaccctga aacaatcagt taaggcgcac cgggttagtc caaaggtgta 960
tctgatccat ctcaccaatc tcagcgcagg gccgcgcaga ttctaagaaa ataggaaaca 1020
cgtattatag aggacaagaa gcataagcat aagcataagc agaaagggga taatggaagc 1080
ctgaagccta gtaccctgat tcgcctctct tactttgcct agagta 1126

- <210> 754 <211> 2538
- <212> DNA
- <213> Aspergillus nidulans
- <223> unsure at all n locations
- <400> 754

gaaaaaacaa catcaaggat cacatgaaat aaattttacg acaataagta cctatccagt taaaatagca gtgagtgaaa accaacatat cttgtgcaat ctcacgagat acatcaactt cctagacttg taattgtgag taaaactaat cacaagcact tccagaaaga tctattactc cataagcaga ctgtgaaatt tctagtagat gcggcaggca gttaaaaatc ccacagagaa 240 tgtgttctat tgggtgcgtt ccctgcatcg gagacatagt cggagacttc ccatctattt 300 tagtgcggcc tgaaccctct tccacaccca gttttcatca tcatcatcgt catcatcatc 360 actaccgtct ccctagaata acatctgcct cgtctcctca ctctcactta accccatatt aggcactatg gcctcagcaa gaatctacga cgtcctcatc attggcgccg gaccagcagg 480 tetetegacg geeeteggge ttgeeegtea gaegtattee gegattgtet ttaaeteeaa 540 tcaatatcgt aacgcctttg ctgatcggat gcacaacatc ctgacctggg accacaaacc ccccagcgat tttcgtgccg ctgcccgaga caacatcgag tctcgatata gcaccatcca 660 tttcatgaac gcaacaatca catcggccgc ggcgaaagaa gacgggacgt ttgaggtggt 720 ggatgagcag gagaataaat accagggaag gaagctcgcc cttgccacgg gcgtcaccga 780 cgtcttgccg gatatcaagg ggttcagcga gttgtggggg aagaacatat tccactgtct attetgeeat ggatttgaag agegeggtge egagtetget ggggttetgg gaggeggett 900 catcaccgag cctgccatga tacttcatat ggcacggatg gtatcgcctc ttgccaaaaa ggtcactgtc tactgtgacg gaaatgaaga gcttgctgcg cacgtgcaga aagagttcaa 1020

gggcaagcca ttggagatcg aatcgagaaa gatcactgct ttagagaagc aaggcgagag 1080 cgtcactgtg cggttcgaca gcggtcagag tcagcaggag ggctttctgg tgagcaccat 1140 catagttacc actcacctga catgataaag gcgtactaac gatggatcct gctaggtttc 1200 tgcccctcgc gtccggatca acggcccgtt tcacgaacag ctgggcctga atgtcgaccc 1260 gatgggattt atcaagacaa acgcgccatt caacgagaca aatgtgccag gctgtttcgc 1320 tgttggcgat tgcggatcgc tgatgaagtc ggtgcctcaa gcactcgcga caggctcctt 1380 tgcggcagca ggtttagttg cgcagctcgg tgccgaaggc gagctgtgat tgccatcgcg 1440 ttcaaagggg gaattgtaga tcaaacgtcc tgggattcca tagctatagt taattttact 1500 cgtaaataac cattaattga gtatacttgc gtaccttctt agtaccttct cagtaccttt 1560 ccgtatgagc atattcgctg cgattcagtc cagatatcgc ttagtgggct tgttcgtttg 1620 ctgctgtaat ccattccgat atagaaacca tatagccagc tgaagttgtt gagtttagac 1680 tcgatcctgc ctcgaacagt agttaagggt agttatacgc aaaaatccat tagcaaagca 1740 tgtcgtagta ttttaggtga ctatcgtgct gtttaatgga ataťaggacc ctaaagtggt 1800 gagatgttgc ttattagata actacgctac atcggtattt ataccttgtt acctgagata 1860 taggattatt tgcctcctaa atgatttgtt acaaggacaa actggtacta agcatctggc 1920 ttctgtccgg tagcaagaaa gtacacaaag cgacctaccc tctagtttga tatcaagaat 1980 gtctctgtga gaggatgatc ccggatacgg ctattgtttt ctatcgggct tccagtcgta 2040 gactgttgca teetgtetge caagtetaat ggeaaagtat gggttaataa taegagtaaa 2100 aaaaaagaag aataaaaacg tagttccgac tactatccca tgcaggctgt ctattattag 2160 gaataccaga tataccgagt acaggccaaa gaccccaggc tcagggaata atttgacaat 2220 tcaaaaggga acgctggcaa cctagcctat caagagaagt ctagtcctaa agagttcccc 2280 tactgacett ccaagecagg gtgeggaaga gtgagtcaag tteetagagt teaacatege 2340 tettgegeae egatgtgget agattgtage teaceaegee gecettttet gtatggagat 2400 ntctgacgag cgtgcagagc gatcccgagc cacctaggat tttcattgat gcgcggcgcc 2460 tgcaaaccgc gtcactttgt cagtagcagg atccctacgc tagactgatc gcagcgctcg 2520 2538 ctacgtatgg atggctac

<210> 755 <211> 8864 <212> DNA <213> Aspergillus nidulans <223> unsure at all n locations <400> 755

acggggagat cgggtcggat ttgaggtttc caagagacga aaagcagcgg gaatccacgg 60 cccgctgatt ggtcaaccgg gccagaagag aaattgtgca cattatatta cataatgcgg actatacctc cgagcctctt attcttatgt cttcctaggg accaaacgta ttgcgaagca 180 aaacagcccc tccgtgtgac ggcaaccaac ctacatactg catacagatg atcttgattt 240 gcaccattga cacctcaacc ctcgagtctt aagagatcga gctggcagcc ctctccacct 300 ggctatcctt tatcccttgc agacattgcc gattcctctt gattcatcac agaacacaga 360 acacattgcc cagaatcgta gtagccaacg aacttaacat caatggcctc accaaaccag 420 atatccaatg tttcacaatc cggaatcacg actgacgcag tcaccggcga acgctacata 480 ccctcttcag tccgagcaga cggctcgaag cgtaaggaga tcaaggtccg acccggatac 540 cgcccacctg aggatgtgga attgtacaga aaccgcgctg cagctgcttg gaagaaccgc 600 gggaaagctg gtgttcctgg agcagagggc ttgacgcaga cggggagcga cccgtcaaaa 660 tcagtttcgg gtagcggcac cgcggccagc aacaagaacg cgaaaaggcg ggaggcgaag 720 aaaaaagcaa aggctggagc taccctggac ggcaccggat ccaccacaaa tgggaaagat 780 attteteaga ttgataattg gegtgeeggt teggeaaaac ageageaaca ggatgegeet 840 900 gcggatcctg tcaatccgga ggtagagcgg gagaagaagg ctcggaacct aaggaagaag cttaagcaag cgcgggagtt aagcgacaag aagaacaagg gagaggtttt actgccggag 960 cagctggaga aggtgatcaa aattcaggag ctgatccgcc agctcgatgc gcttggtttt 1020 gatgccgccg gggaagacaa ggaaagcgaa ttccagaagg agaagcaaga gaagtaggtt 1080 tgctaagggc tgaaggtcgg cgtttcattt ggcacttgcg aatcgaagag aacgacttca 1140 tactcgccct aaaggcactt atgatgcggc ggcctcttta ttgcagcgcg ctctgaagct 1200 tectegecae getteatate aataaceatg catatggeeg attataacaa ttgettggea 1260 attactacat aatcgcctcc ctgtagtcca ctttacgcaa gtgactcgtc tgtgtcaaga 1320 ttatgggtca gtactcgaat cacgacgtcc gacaatcctc aagagttcgt gctgttcacg 1380

tcgcagtgtt tcgctcacaa gaatgatcta tggctcaaat gagcgaagga ccgagtgaga 1440 atagagetat caaacaegac agaaeggggt atetttgaac tteatatttt acaggtgttt 1500 aaattaaacc atcttctact gccgaatctt tccctaaatg ccaacagtaa cccctcgtgt 1560 aaccggcctt gggtccatcc ggactagcat tgatgccttc aggcctgctc taccagagcc 1620 tgcattactc taattgggat tcttttctat cccacatttc ctgaacaatt cctcagatga 1680 cgccgttatc cagcgaggtt ggtagtgggt aattatacca ccaccacaa gtgaatccgt 1740 cagggatgga aaagggaacg gtgctcctga gtattccagc tcagggccat atttcgcagc 1800 tagataagcc tgacgaatgc tgtccaccac gccggtacca tgcattgaat accacgcccc 1860 agccagagtg acacggtttt tgagctcaga cttaatagac gttgaaatgt cttgcatacg 1920 ttcaagatgc ccaacggtgg gctgaggaat agcatcgcgc tgcaatcggg tgtgggctac 1980 tttgggagaa tccaggatgc ccagatgcct tttcagtaag gcttgagaca tcgagaccgc 2040 agtategtgg teeggatagt etgattettt ceaecegtee eaataatgge eececateat 2100 gactgtgagc tttgtgccgg tggctgtgtc ttgacctaca ctagattctg aagcaaatat 2160 cacacccagt getegeteag gattetgege aaaaggtate gacetgggaa teaggtagee 2220 gaaacctcga cagggatcag atcaggattt gagtaataca aattcacaac catagtagtt 2280 gttgcgtagt tgtgtctctg tagggcattt attgttcctg tgggctgctt ctcgggctcc 2340 agtgaacact gaagttgtct tgcgaggtcg caaggcgggt tggtagcaat gagacggttg 2400 tgaacacgac tetgaecate ttetaetttt acetgttaga tagacaggte agttttteeg 2460 cataaatget egettegaga taetegaaet ttgaaateaa eataeagtga ggttggaget 2520 ctcatgatct tggagaatgc ttgtgacatt tgcatgcgtg aggacttcaa cttttggtga 2580 tegttteaac tetgeaacca gagegtetge cagetgaceg aegeegttet tgaaagteaa 2640 tgtactgctg tcctttgcca ggcttctgag gtagtctaag tgagacgctt tctttgcttc 2700 acttatgagg agcatggaaa tgaaatcgtc cgaaatccag tactgtttcc ctttcatctc 2760 cgttataccc ttggctacac taccagacaa ctcatgcgcc cgaagcgggc ccaggagcgt 2820 ttccgcactc agcttgtcaa tattccctgc atatatgcct tgaaatacac tggaagccaa 2880 attgtcagct attttggtag accaccgtcg tgatacaaac tccatggcgg attcgtctga 2940 aggcaagttc aatggacgct taacgaaggg ctccttcaaa aggctaggaa gcacactctc 3000

gaagactggt tettgtagta gaetttteaa egtegttatg agetgagata aaagaetgge 3060 ccctttctgc ggccccggca tacgaacgag gcgatcgggg taatagatat aacggttctg 3120 gctcacggcg gatgacgttt tcgtgataag catttcgtct tctagcccca gctcggtcga 3180 ctaccaaaat ttccagttgt tagctctcaa actccaatta agcaagtaaa tacccaaggg 3240 cgccagctat accaagtcca aaagtggaaa tgcagtaatg gtgctagctc gcagtgtacg 3300 ctgtccatat tcgaagacaa tatgctctcc gtccacgtta attttctcgg attgaatcca 3360 gccgcccacg cgagggcctt tctcatagac ggtaaccttg gagcattttg ggtccctgga 3420 taatcggtat gcggctgtga ggccagtgat tccaccgcct atgatgccaa cagtgtgtcc 3480 ctccgaaatg gcatgcaaga agcgccgttg accattgcaa ggaaaagcca atggtctttc 3540 taaacgcttt agtgcagaac tagcggcgca tgatccacgc atttcagcga aaatgagtag 3600 tagcgaaagt cattgagaaa tgaagaacat ctggtagggg tagacgtcag gcaacttacg 3660 actecgtegg ggtgettgga tgtgeeecgg taagattace gtatttatae tteategtta 3720 ctacaagtac catgcatcga cgccgcaagg gcccggttta agtcgcaata agaggcatac 3780 ccagtgggaa aaaaaaaatt tgtcactaaa aggagcaaac tgtgtgcttt gacataatct 3840 tgtatccagg ttctatttac aggcatatct tctctgtcac ccagtcccag ggatatcagt 3900 agcattaatg aaacaattga cgcctatccc accatttaaa gatcgtcctc aaaaagcaaa 3960 agcagatagt acacgttgcc agaccatgca gaaaggtagt ttgtgaggta tcagagacgg 4020 ctatggccgg tgcatagccc gaaaaaaatc atctagacta tgttacaatc tcttgtgaag 4080 agggttccgc cccagtctct ggcttgatga gctcctcggg ggcatcctcg tcgttgacaa 4140 actteegete getaatgegt geetttgett tageggagte tgeggteeag actttgtegg 4200 caaatgcacc tctctggcct tcggcgtgct tgtaaggaca agtagggtta agacagggat 4260 tgaatttgca ggcagtctgg agatgcgtga acttgcagtc gggggtggaa cagtcagcac 4320 cattgcggca cagcggcatc gaaggatgct tgaaatgaca gtgaggattc gtgcagttag 4380 ggaagaacct gcaaagttct tctgcttgat gggctgattt cacagctggc gaggggtgcc 4440 tcccagtgca cttgcggttt ttgcacgccg caccataaga gcacacgtcc gaaacatcaa 4500 caggagtacc ctcgggggca gcgggagact gatgcgcgaa ggggcagtcc ttcctcgtgc 4560 agcgaaggtt gaaatggcaa atgttatctg tgttgttttc atcctggcca ttttgcacgg 4620

caccgtcgga agtcatgtcc atatcggtgt cgttattttt cgagtctgca cgttgcgctc 4680 gatttccaaa ggccccatgt tgacggggcc ctcttgggcg ttcaactcgg tccgacaagg 4740 agcgttgtgg gccagactgc tgaaacgccg ggtttattgc cggtgagaca aaaccgggca 4800 tgagttgtgc catcatecte gettgttett caaggaggga catcagatge atetgategt 4860 tegggtteat gtteateagg ttgeeegeag eacetgeeat etggttgtte eecataeeea 4920 tgccaccgcg cccaccaaac agccttccat taccgttctg gttaaagcgc ccgcccctgt 4980 ttccgccgcg tgaatgagag tttattcggc cgccaccagt ctggtcgcga atacgatgca 5040 atccagaatc cccgcgatct aggtttcggt tgatctggtt gagcattcta ccccgacctg 5100 cctggccgcc ttgacggccg ttgcgcattg actttggtcc cgtaggtctg tgtcccggcg 5160 acattagtat gatttcaagt ctttttcatc aatgaatacc tacattccan ggcggaaatt 5220 ccggcgtcac tcatgttcgt atcagatgac tggggtcctt tttcatggcc ttgcacctga 5280 gacgttgtgg tetettggte gteaaatgae ggaategett gggegttgte attegatgte 5340 tgtgcactct ggccattgat ttgctggttg aaagcgtcga cttgctcaaa gagccatctt 5400 gaaaaatcca ctgcttgtgt atcgccttcg cctagcccga ggagatcgtt tgagagttcg 5460 ctggcaatct gttcctgagt cttgccattg acgagcatta aaataacgta ctcagtcagc 5520 geggaatege tactateaga acteeageee atetecacea gttttggttg aatageattg 5580 ctcaaagcct ccgctagagg agtgcccacc gcaacggtag ccatcgtggt tgcgccggcg 5640 caagaaccgg ggggagcgga atagggaaga ggaaaagaaa tttgaagtcc tttatcttac 5700 gtcgtccctt gatcaaatct ggatgagaat attcgtcaac tgatataaaa aagcctgatc 5760 gacaaattag ggaggtgtgg aagactgtca aggcttgttg atactcgtca caaagcccaa 5820 gacgagttcg agatgatgaa aggtgcccag aacaacttct ccagccattt atcacgtgac 5880 tctatatgag tggcgtacaa acaagcctta taagtaaggc atcaatttca gcagtgtcct 5940 cattttaata cttgacgtca gcgccaatga aatcgtagct tatttgaggt ccggacaaac 6000 aaacctatat gttgatatet acgeaactet acaatateeg eteacaaage acegaagatt 6060 aagagtacag cttggatata gagagagcta ggccaggaat cacagcaaca aagacaacaa 6120 ctgaggcaca ccaaggtatc tttaggtagg cagaaccaac taaaccaagg actgaacata 6180 gatgctcaca gggaacggcg tgtacagagc gagtttacgc gagcttacca tttttggctt 6240

agttgactat cattgaaagc agctgagtca gcatcgcgtc atgcaaccta agttaatttg 6300 ggcaggaagg gcgtgacgga gtccttggaa gttcttaatt cgaattacta tgatctttaa 6360 cccagcgatc ccagttaagg tatgctttac tctattccgt tttcatattg atattgctat 6420 tattgttagt cttttgaggt tcggctatgg tcattcctac agccgcaact cgataagccg 6480 acgctagcat tagctcccct gcgtcacgcg aacaccatcc gctggttgag cttcagcttt 6540 ccttagttcc catccaatat cctcatcctt ctcctcactc ttccaaggtc ctcgaaaata 6600 tcaataaacc tcattcttgt tgcgcatttg cagtgattat tattagtgta ctgtggcagt 6660 cgaccggata atgagaccag cggcagtctc cctggggttg atcggcggca tctccgccct 6720 tggaattccc ctccccgaga ctctggaaca gctaccactg agtgatgcgc agaagcctct 6780 tgtgagctct gaagggctgc aggctcagat tcatgtgagc aaccttctcg atagggccaa 6840 agtcctgtat agcctggcag aacgcggaat agatgaatac aatcatccga ctcgtgtgat 6900 tggcagcaag ggtacgtccg actgccagaa ctgtacaacc tgcaagaact catattggac 6960 gtctaggcca ttgggggacg ttggattata tttactctac aattatggaa ctaggcgact 7020 atttacgacg ttacaaacca atcettteet getgtttetg geaatgtttt tgaatetege 7080 ctcgtccttg gccacgaggt gccagtatca gcccgtctat tgggcttaac ccctcccacc 7140 aagaacagag agccagtata cggctcgcta atccttgtgt cgaacgaagg atgcgacaag 7200 gccgactatc cttctgagct cgctggggca attgccttga tccaacgcgg tacctgtcct 7260 tteggtacca aatcagaact agetggcaaa geaggegeag ttgeegeggt agtatacaat 7320 aacgagcatg gtgaagttag cggaacgttg ggaaccccat caccttacca cgttgctact 7380 ttcggcatat ctgatactga cgccgcaccc tacgtccagc aattgaagga gggaaagaag 7440 gtcgattcga ttgcttacat cgatgcaaca gttgacacta tttatacaac caacattatt 7500 gcgcagacga ggcgagggga ccctgaaaac tgtgtaatgc tcggaggtca cagtgacagc 7560 gtcgcggaag gacctggtat caatgacgac ggctctggca ctctgaccct tctggaagtt 7620 gcgactcaac ttagcaaata cgacgtaaac aactgtgtac gcttcgcttg gtgggcggct 7680 gaggaggagg gtctgttggg ctccgactat tatgtatctg ttctcagcga agaggagaac 7740 ctgaagattc gtctcttcat ggattatgac atgctggctt cgcccaattt cgcctatcaa 7800 gtctacaatg ctacgaatga ggttaaccct gttggatccg aagagctacg tgatctttac 7860

accgagttet acaettetea tgggeteaae tteacataea tteegttega tgggaggagt 7920 gattacgatg gtttcattcg aaacggcatt ccaggcggcg gtatcgctac tggtgcggaa 7980 ggtgtgaaga ccgacgagga gcaggagatg tttggggggaa ttgcaggcaa ctggtatgat 8040 ccatgctatc atcagttgtg cgatgacctc ggaaacgtca acqcaactqc ttqqqaqqtc 8100 aatagcaagg tatattttga aattctcggt gctggtacaa agctcacagt tgactcttct 8160 cgcagctggt cgcccacact gttgccacct acgcagtgtc gtttgaagga ttcccaaagc 8220 ggacaactac caatgttaag tccgtcgacc tcgagaagcg caagtatcac ggccctaagc 8280 tactcatgta atataagcat gccgactgtc aaacagctgg atgctgagat aagtgatcat 8340 gacctttatt tttctcttga atatactctc atttcctgtt caaataacct gttccaagag 8400 agaaataacg ctagtcacta gttgttgtgc tcttgcttcc tctgggtaca gcacctggtg 8460 atagttttag aaccatgcag aggatattgg gagtatcctc gtgccaggca aaccaagcca 8520 tggtcttaac gaaaattcgg ctttctttct tgatcccgac cagatcacat acctcagctg 8580 teegtggetg agtaggacee aacttegtgt ggtaeagtge ceaceaaatt teeaatatge 8640 caatattete teetagteat aggggtttet gggeecaaat tgeeacgtea aacceatace 8700 tgggacgtcc cgatgtccaa tatgcctcac aatcagaatc acccccgaga ttgcactagc 8760 gaccetegtg ttgccagtgg cegtttecae gataattgtg aaccgcacae teaacceate 8820 taaccgtgta ttttcctgaa tggatcatgc cgtaaacaaa ctag 8864

<210> 756

<211> 1840

<212> DNA

<213> Aspergillus nidulans

<400> 756

aaccaacttc tgcccatcaa agagattgct agggcttgag attagcgggg gaagcaagca 60
cggaccaatc ggctctattt ctggaagcca ggaatcccca gattcgaccg acagctagct 120
taacaaggct tagccctagc tacttttccc gggctggcgt cttcatgatt cgatagggcc 180
aaatttgtgg cggaaggaat tctcatcgtg ccaccaaccg ctaatgagaa aaggatgaaa 240
gctgctacgg caaattttcg cgaatcatgt tccttgaacg agttcatggg gaagggtaca 300
ggatttcacc tgccgaggcc gatattgagc aagcaatgag cctccggtcc tttcgtcctt 360

tctcgtttcg gtcatcggcc cgtgtcgcct gggtacatgg ctagaggaca caaaaatcca ctcgttcatg acggccgtca ggtattgtga gatcaggtag ccatgtccga gctctggtac 540 caaaggcccg ctgctggatg ggacgaagcc ctgccggtgg gaaatgggcg tctcggggcg atggtctatg gtaggacaga tacagaactg ctccagctca acgaggactc ggtgtggtac 600 ggcggtccgc agaaccgtct tccagaggat gccctaaagt gcctaccacg tcttagggag 660 ttgattcgag aaggcgctca caaggaggca gaacggttgg ctcgtcgcgc gttcttcgct tccccaaata gccagcgaca ctatgaacct cttggaacgc tgtttttgga gtttggacac 780 ccatgtgaag aggtcacggg ctaccggcgg tccttggact tgaatgaggg cattactcac 840 qtqcattatq aqcacaacqq tqttcagtat catcggcagg tgatcgctag ctacccggat aatgtacttg ctatgcgggt acaagcatcg cgatgcagtg agttcttggt ccgactcagt 960 cgacttagtg agttggagta cgaaacaaat gagtttctgg acgatctcgt ggtcgatggg 1020 caatcgatca agatgcatgt cactcctggt ggcaaggaca gcaaccgggc atgctgcatg 1080 gtagcaatcc gctgtgggag tgacgaccag gaaccgatca aagtggactg tgtgggaaag 1140 aacctcatca tcaacgcgcg ggacgctctg attgtcatag tagctcagtc aacataccgc 1200 tgcgatgacg ctgacctcga ccgcgccacg gttgccgacc tagaagcggt cctggccagc 1260 teggtggaag acatatggge tegacatatt aeggactate aateettgta tggeeggttg 1320 gagctgaacc tgggaccaga tgcaacagat ataccgacgg accagcgtat cttgcatgtg 1380 cgaggcccag aacttgtggc catatatett egetacagte getaettaet gatategtge 1440 agtcgtcctg gcaggaaagg tagttctgat cgcgtgttgc ctgcgacttt gcagggcata 1500 tggaatgcat cgtttcatcc tccgtgggga tgccgctata cgatcaacat aaacctgcag 1560 atgaactatt ggcctgccaa tgtgggcaat ttattggaat gtgaagagcc cctgttcgca 1620 ctgctcgagc gccttgccgt cactggtact gagactgcac gcaagatgta cggctgtcgt 1680 gggtggacag tgcaccataa tacggacttg tgggcggaca ctgcgcctgt tgatcgctgg 1740 atgccagcta ctttgtggcc actcgggggt gcctggctgt gtactcatgt ctgggagcgg 1800 1840 tttctcttta acggcaacaa ggcattcctg aaacgcatgt

<210> 757 <211> 1520

<212> DNA

<213> Aspergillus nidulans

<400> 757

ggtcaatcgg ggtgcgctca tccgatctaa ataatcctcg ctgtgatcgc ggactgaagt 60 geggeaagte tttcacatee tgatgeatea ggaattggtg gatatetgee acgatteete 120 attetggtea agteageace egttgeaceg cattttgtta gtaaagggge teaageteae 180 ctcagcatca acccaatcat acgtcttcca ctgctcctcc tgcatctttt tcagaaggtc caggttcccc ggcatcatga cttctctgtc ctctgcgcct ttgaccttca cgtcgacggc 300 tctagcctcc ggctcagctc gatcttcctc gccttctttt cgacttttcc cggcgcgcgc 360 tttgggcatc tcgtccatcg cgtcgagatg gtggagctgc gggtgtaatt gaacgacggc gctaactgga gagagatgta gtttatctgt aggcgaacag tccatcagtt ccagcgcagg 480 aattogaaag gaagacgaga acataccgcc cctaaaagca gcaagcatgt aaactggatc 540 accatcttct ggagtcttga ttctccctcc caacgtctgc acctttaata gcggtgtctg 600 atctcctgcc gccctacgca tggcatcctc acttttcaca cctccatttt ccgccttaac 660 ctttcctgca acaccaggcg cgcctccctc acgcgccccg gcaacactaa acccgcccgc 720 cataccatat geacetecet caegageact ettaetttte tteagegeat caecatattt 780 cagtecettt gecagateat agtttaetet tgtgttaate ggeaegteaa eetegaeaag 840 gcccgtcttc ggcttcaggc gcagctcagt cggcttttgc ccgttgttgt catcataggc 900 atgcccggtg ggccggtcga gatattgcag aacataccgg ctaatgtcag aatttgtgag gtagacgtcg taggaggcga tgataggatc ggagtctgag gggtcggtgg tgcgcgggtt 1020 ggagggggtt cgggattttc gaggagaggt ggtcattttg gtagaggtgc cagagggaga 1080 tggagagtcc agggtactct agtgttattt tggggattga agaagctata aggattttgt 1140 ttccattatt tgaattgcaa tgctgcgagc gagcgactat gattatgcag gtcaacgtcc 1200 gttctttttt cctcttggaa tcatccaaaa taacggcaga aagatttgag ctgcacaccg 1260 cttaccgaac atagaccggt cttgcctccg cctggcaaaa gctgtgcaca attgcctatg 1320 cacaattgct gagtatatac ttcttatgca agctgtatgt tgcatttact ccagcccttt 1380 caagacctgg cgcggtacta aagactatgt taagtacgac agcatttgaa gggtgactta 1440 aagatgccat gttgatttca cggaaatacc aagttaaaaa gcctccatac aatgggccta 1500

ulans

<400> 758

ctatcagtcg tcactcgagt cttgtttctg gagccgaaca taccagcaat tgcatcggac 60 atggcgggat ggtacattta caggatactt agggtcatca tctgcgtcag actgagctgc catacceget tecacaaegg gacegtgttt etatagtget ecatgtegat eeeggggaeg 180 agttcgcccg cagccgggga agcaggacgg tcatcctggt tggggccctt gggggcagca gttttggagt cggtcatggt ggatcgtatg ttggatatcc aggacctcga gatcaaagcc 300 ggggaaggcg ctggttatat acccgcaatg gcagctacta tacaccctta ccctcgggtt 360 atttctgtat ctctgccacg atccctccgg tatctgggtg ggtctcccca cgtcccatcg 420 tgtctccaac gtctccaact gtgccatggg gttcgcctcc gatcccggtg gaaggtccag gcgaaacggt ccaagccgcc tgcgttttag ccggagatct gggctgtgag ccaagcttcc catcgagctg aggccggcca agcggtggga aggtccacgc gaatgttagt ccctagtagt 600 ctcgtagtag acgccatcgc tccacaaaat ccccgcgacg ccgttcatta agagccaatc 660 ggattgatcc attttatcgg ctttctatct ggcatgatca ggctgtctta taaatattca 720 tcgctctaca gtatagctat ctgtcgtgaa tatagagtta caacttatca gtggagcatt acttgacagt attctacagc caaggttgac tecetecagt ecetetegea acceetttee ctgtcaattc ttccatcttt atccctttac tcaagccgac aactgcattg caaccatgac 900 gccccgagcc aacaccaaaa tcattgtcgt gggaggcggc ggcacaatgg gctcgtcgac agccctacac ctcctgcgcg ccggctacac gccgtccaac attacagtgc tcgacacgtg 1020 ccctatcccc tccgcacagt ctgcaggcta cgacctgaac aaaatcatga gcatcaggct 1080 gcgcaacaag cctgatttac agctctttct tgaggcgctg gacatgtgga aaaatgatcc 1140 tetetteaag eegttittee acaatgitgg aatggigegt caccaateae tgacateata 1200 gagagacgag aaacaatgct gatacgtgaa gatacagatc gacgtctctt caacagagga 1260 aggcatcgag ggtcttcgga agaaatacca gtctcttctc gacgcaggca ttgggctcga 1320

gaagacgaat ttcatgctgg aaagtgaaga cgagatcctg gctaaagcgc cgcatttcac 1380 gcaggagcag attaaagtac tttccacctt tcagtatccg ctgctcaggt cctcgaagta 1440 tgctaactaa tacgtatagg gctggaaagg cctgttctgt ggcgacggcg gctggctcgc 1500 tgcagccaaa gccatcaatg ccattgggca gttcctcaag gaacagggcg tcaagtttgg 1560 atteggeggg taageettte tateeaagae tetgetetea ataetaacaa cagagtageg 1620 ccggcacgtt caaaaagcca ctctgggccg atgcccacga gaagacgtgc atcggcgtcg 1680 agactgtaga cggcacaaag tactacgccg acaaggtcgt tctagcagct ggtgcctgga 1740 gttcgacgtt ggtcgatctg gaggagcagt gcgtttcaaa ggtatgcatg cctgcgcttc 1800 caagcgttgt tcaagtctaa agtggtgctg tctctaactg tgatcatgaa aggcctgggt 1860 ctttgcccac atccaactga cgcccgctga agcagccgcg tataagaaca ctcctgttat 1920 atacgacggt gactatgggt ttttctttga gccgaatgag tacgcacctc ccctcttctc 1980 attcttccag agaatagcct actaacatat aacagaaacg gcatcataaa agtctgtgac 2040 gaattccctg gcttcacgca tttcaaaatg caccagccgt acggctcgcc ggcgcccaaa 2100 cccatctctg tgcctcgttc ccatgcgaag caccccacag atacataccc gcacgcgtcg 2160 gaggtcacga tcaaaaaggc tatcaaccgg ttcctgccga ggttcaatga caaggaactg 2220 tttaacaggg ccatgtgctg gtgcaccgat accgcggatg caaatctgct tgtttgtgag 2280 catccacgct ggaaggggtt ttatcttgca acaggggaca gtgggcattc gttcaagttg 2340 ctgccgaata ttggaaagca tgttgtcgag ttattggagg agaggctgga aagtgtgttt 2400 aaggatgctt ggaggtggag gcctggcagt ggggatgcat taaaaagtag acgggctgcg 2460 cctgcgaagg acctggcgga tatgccgggg tggaggaatg aggcaaagat gtagatgcat 2520 attaaagaaa ttccatatca taacaataat cctaatctaa aacattaaag cgacttgata 2580 tatagogtot aatoatotta toagagtaaa gagogtgoaa coataatogo ogattoaaco 2640 gaaacaccca ctgagaccac aactaacagc cgtggtactc agtatgcaaa agtgaaactt 2700 ttatgccttg gtagcaagcg cctcctcatc gtccgcaaag gcatatcttg agtaccgccg 2760 · gatggcagcg cccttgacgt agaatacgta cggaatcgca cagcaggcca gggccaggaa 2820 ggcaagcaaa gagctggccc attgatcgcc caaccggtcg tacatctgct ccgtgaaaag 2880 aacagtcgag gcaccccaga gcgaacggat gaaggtcttg gctgccaggg cggaggcggc 2940

ttggtgctgg tatgtatcca ctgcaggaat gaacattagt aaatgcgacg gcagatggtt 3000 gtgatgaggt tgttacatac caagatagtt gttagctgag ttatacagga aaataaaccc 3060 gaatccaaca gggaatccgc caatcattgg accgaaccag tgaatattgg ggtacgaagt 3120 ccaagcgaag atgaacaggc cgatgggaat aaaccaacag gagatcatca ttgggatgag 3180 acgagattcc gcgggtggct tgccgccgta ttttgagtaa agagataggt agtggttgtt 3240 cacaaatggg gcacaggcgg cgctcaacag aacgccgata gcaagcggga tgaacatgag 3300 acccgtagtc ccggcgctcc agcccttgcc accttcataa actataggat aggcgacgaa 3360 gaacatgtac agcagaccgt agaggacgga catgtacagc gagataaaga ggacgatggg 3420 ctcgagaaag agcagttgga aagggcgcaa gaggaagaca cggagtctct caccaatcgg 3480 ccgtgcgtcc agctcagga tggctggcc ttcgctagga tggctggcc tgaggtctca gggacagtaa aggtgataag 3600 cacccaggcg acaaaggag gaatcaggt taaccagtat agccaccggc agcccgaggc 3660 gtcggc

<210> 759 <211> 2512 <212> DNA <213> Aspergillus nidulans

759

<400>

ccctctttct tggaagtgat agtggtgaga agtctatacc atagattgat agctggatct 60 ttaatattga tgaccgtgtt attagcatta aaggagcaat acagtagtcg tagcccgtta 120 actagtcaaa caggcaagga atacgagact ggttctggaa gtcccaccga tcggactgtg 180 gagtgactta agcaaagcct acgtctttag tctggttgcc qtttagtcta ttttccqctt aagggtctcc taccttcaga ggtactggtt tcgttctcat cactcactac atcccattca 300 tetetttett ggtegeeett tgttgeeet ggeattggee gateggaeee ttgggeaete 360 gcagcctcag cattetetta aggtatetat egetgaatga ggcetgtete teettgetag 420 ctgttttcat gaccggttca agcaccttcg agttgctcct tccggagcca cattcttatt 480 gaaatccagc ctttctctgt cctcgtgagg ctctttgagg cccgtcatcg catcgttggc 540 cgatcatgtc cgagccgaga cagtcgagcg agaataatga ctccaggcag cctgcatcga 600

cgccacttcg ccgagaacga gcacccacga taacaatcga tacgtcggcg gtcgtctcct cggaacctcc tccccagatc gaagctcctt cgcaatcttc gcagtcacgc tctgcgtaca atgctgatca tacagacacc agcgcgctcc tgaacagtag cactgtttct ccttcagata 780 cccgctcagc tcattcagta cgctcgtatg cttcgtcaga gggcagggaa cacgatagca 840 ggccaacgtc gccatcgcct cgcaccaata ccttttctcc cggcgcgaaa atgggcgact 900 caaactacct ctccgtaccg ggcaccagat ctcgcggcaa ctcactcgag tctgaagact 960 cgagccatac cattggagcc gaatcacggt caattggaag ccatgggtcg cctgcgagct 1020 cggccaaggt gacgatcgaa aactacgagg aagctcttct gccggacccg ggtcgcgagg 1080 cagaattega ggttgagaac aategttttg cettetegee aggeeagetg aacaaattge 1140 tgaatcccaa gagccttagc gcgttctacg ccctcggcgg tcttgctggt ctcgccaagg 1200 geetgeggae egateegege agegggttga gettggatga gaeegagttg gaeggetegg 1260 tgagtttcga ggatgcaaca gccccgagca acaaccagcc tctgccaaag cctgccgctg 1320 aagcgccgcc cgcagagccg tcccgcgctg ataccacacc acataagcaa gatgagaatg 1380 cctattctga tcgtaagcgc gtatttggag caaacaaact tcctgagaag aagaccaaga 1440 gcatcctcga acttgcctgg ctcgcataca atgataaagt gctcatcctg ttgacggtgg 1500 ccgccattat ttcgcttgcg ctaggaatct accaatcagt cacagcagtt cccggtgagc 1560 cgcgggttca atgggttgag ggtgtcgcca tcatcgtcgc aatcttgatt gtcgtcgtcg 1620 tcggtgcagc aaatgactgg cagaaggaac gccaattcgt gaagctaaat aagaagaaag 1680 aagatcgtct tgtcaaggtg atacgttctg ggaagatgat cgagatttct atccacgata 1740 teettgtagg egaegtgatg catetagaac etggtgacet ggtteeggta gatggaatet 1800 atatcggagg ccacaatgtc aaatgcgatg agtcgtctgc aactggtgaa tcagatgtgc 1860 tgcgcaaaac gcccgcacag gatgtttacg gcgctatcga acgacacgag aaccttgcca 1920 aaatggatcc gtttatcgtc tctggtgcca aagtgtccga aggcgtgggc acattcttgg 1980 ttacggctgt tggtgtgcac tcaacttacg gcaagacaat gatgtccctt caagacgagg 2040 gccaaactac accgctgcag acaaaactga atgtactcgc ggaatacatt gctaaactag 2100 gettggetge eggtetaetg etgtttgttg ttetgtteat caaatteett geeeagttga 2160 agageettgg caaegeggat gagaaaggte aggettteet teagatttte attgtggetg 2220

ttactgtcat tgtcgtcgcg gttccagagg gcttgccctt ggctgtcacg cttgcgcttg 2280 cgttcgctac gactcgtatg ctgaaggaca acaatctggt tcgtctgtta cgtgcttgtg 2340 aaaccatggg aaatgcgaca acaatctgtt ccgataaaac aggcacacta actgaaaata 2400 aaatgactgc tgtcgccgca accctgggaa ctggcactag attcggcagg gagatcacag 2460 gcagcatcac ctacaaatag aaacggggat cggccagctg attcgaaaac ga 2512

<210> 760 <211> 6849 <212> DNA

<213> Aspergillus nidulans

<400> 760

gacattacct ttcgccatca gcccaagcgt cgctcttaac ctggtaatct cgttggctga 60 gtctgttttc ttaagctctc cagggacctc tcggctgcgc agagatctcc catctcaatt 120 aacgcatgca cagtccgtat cccaagatca gacagcctct gtttccagat ctcacgttcc 180 gctggatcga tgtctgggcg caggatctcc ctccgggctt caagcccaag ctcgtacaaa eccegatte ecctgegegg ateteegaae eegataetet geageetaat agetaggaeg 300 cgaagcggcc atggcgcaat atgtcgggca tagctcagct ggtgatcacg ggcatcggtc 360 gctgctagtt tgggctctac atagtagaag gtcgaactta aatcttctag cgctttcgat tcttgagctg cgatgttcgt attaccggag agctctagac atgcgagccg tgtgtaaaac 480 aatgcaaata tcaccttgat atctgttggg gatatcagtg acgacgttag gatcgtgccg 540 gccaggtacg ctgctaagag gaaatggcct tccgctagga gcctttcaag agtgctgagt 600 gatgaagcca gggtttcatc agatgtaggt gatatgaagt ctgaccgcaa agcatgaggt 660 atgtcaactt gagagaggga atgataattg tcgtatcgaa gaagaaacga aaggtctttc 720 cccatttccg atggcagttc cggggctaat ggatccaatg agctgaatga gtcaccagag 780 tacattccat agtccgttgc attctgatgc aaaggggtag agatctcgct caagctctca 840 acgttcaggg ggctataggt cgttagcagc cattgctcgt tgtacattgt ggattacgcc 900 tettactegt etggetgate taagggteet ttagttgage taegeggtet tgatgetgaa cagctggtta actccatgag ttaggcagca ataaagctgt tcggccctta cagcgtgaga 1020 cattgcggcc gtgcttgtgg ccgtccatgg cacccggtgc gaaatttgtg cagtttagcg 1080

tgtcttatct cttgctatgc agtatcaaga agagaaagta accaaaggcg agtatcaaaa 1140 gaattaaata cgatcctcga cgcaatgccg agaaatgggg ttatatttag tcttcaacgg 1200 gccccatttt gttgttgcat cgcctttctt tgaaacatct acaagccaca cttgacctct 1320 cttttgtccc catctcctca acttcaccgc tggctctaat cttcctgatc aaataacttg 1380 tccgctaaac tggcgatacc gctatacata cacttgaatc accatgtcgg ccctagctga 1440 ggaattccgt tccagaaact ttagtatgac actcccatca tcttgctggc agcaaacaga 1500 caaagctaac agctcaacct tcaggtatct acggtcaatg gtttgtgccc ttatccccag 1560 cgaaatatet eeetcacaaa atategeacg eegtegaace ettgaatgaa tgatggetge 1620 ctggaatctc taccgatttg cttggcattg tttgcgcttg atcgacgctg gccggataag 1680 cgcccgctct ggcatccgca gggtttccgc gcccgcgatg tcttgatctg ttatgctagt 1740 gctactgtaa agtagaggct aacgaactgc tgttaggacg ggtgtgctgt gcatcatcct 1800 gtgtctcgcc gtcgggatcg ccaatatttt ctctttcaat gcagtgctca ttgttttcag 1860 tatcctctgc atgtaagcca aagcccactc ttgcatgcca tgtgttgaga ctcatccgtt 1920 cagtatetee ggetgeatee tegtetteae tgaagtgeee tteetettga gaatetgtee 1980 cacctctgcg aagtttgaca cctttatccg acgtttcacg accaattgga tgcgtgctgc 2040 gatgtacctt gtcatgagca ttgttcagtg gctcagtctg ctgtcgagag cgtccagtct 2100 gctcgccgcc gccgttttcc tactcattgc ttctctgttc tacgcgctgg ctggcctcaa 2160 gagccaggag tttgtcggta gcaagactct gggtggacaa ggcattgtgc agatgattgt 2220 ttaagacgag cattatcgat cccgctggac atcgaatttc tcacaagagt ccgcttgttg 2280 gactettgte gtttggttte gaccgatggg gaagagagge aatgaaggag tgetgagttt 2340 tacctgtgtc cagcgcacta cgattacgaa ttgatgctgc tgttatcttg ccgttattca 2400 agcccgtgta ctagtatctc atggtggttg gaggaagcca aaacttgtct gagactcgtg 2460 teggettttt ggageaegea eaceggatte teactetgta tggeeaeatt tteatetttt 2520 tatecegttg ttetacaaga etttgteete gateetgtat aettgttatt ggetggttag 2580 tgctattact tgttatatgt ataccetaat acaagcatee tggtgatgae tatetgtaae 2640 ctagtttact cgaataggac agcccttgct tcattactcc atccctccgt gaccgcatgc 2700

ttgccacact agcatatggg cgtcacgact atcagcggcc aagatctata atatatccgt 2760 gctcgtgact catcgatgag gtatgtcact atagcgatgg cattgtatca tgctgaagat 2820 cgttaattaa ggcactgcat atagggccca aggtactata atgggccgaa ctctagatct 2880 cttatcatga ggagagcaga gacaacgatg ttattagcct ctataccaga ttttactaac 2940 tatggctaac tgttgatett gettgggttt gatetttegt atacteegea gaeettgaeg 3000 tcattgggat ttgaaagctt cggtggggtc gatggcgaga cgggtacctg tacccttatg 3060 gggtagatat ttcgaggaga tgctgtatta cttttgctac tacttggact catataccgc 3120 gcatgtaact ctttgcgatc ctaggcttta agaaattett agetgtatge tetgegteag 3180 gagagtetgt aggatageag cetagegtgg tececetgag attetegtee tttteeetgt 3240 aatgcagctc aaactagtcg attgtagccc gagcctgacc tgcaaagagt agatagggac 3300 tcggcaagcg gtaccctatg tatataattt ctatttttta tggtataccc ggcgagacta 3360 cgcacgtaac ttggtccctt ataatgatat taatctgatt gtgacctaaa cacaagatgg 3420 aggaaaagga cagtgataac gggacctgct aatgataaag cctttaaact agagatatct 3480 tacgataget cagtetteag etegeagaea aageaggaea attgeggagg etaggeaate 3540 cattagcata cccaatctgg ggaagagcga cctcccgaac ggactcagaa gctctagccg 3600 agagactatg attttcccaa atcgttagaa tatagtaata ctgctacaat cagtggacta 3660 taactggcgt gtaccttagc cgaggattta gaagaatact ctacgtcatc gcatataaac 3720 ccctcattgc tcagcggcta ccccgcatta tcacaagatg gcttctacat tctctgaaat 3780 accaaagagc tcaggggggg ccgcagatat aactattgca ggggaaattg gtaccgcacc 3840 ttataagccc gacctcaagc aaggaagtgt gaggagacga cgtatgcaag acgacaaatg 3900 caattagaag cttcgagagt tagacactgg cctgcatgtc cacggacgac gagtcaatgc 3960 tcatcccgtg gcctcgtgca gctaggctgc gatatcagaa tgcggaattg gtttagcctt 4020 ggtgctctgt gccagtatca aggcagcgac gtttaatact gcgtagcggc ttgagagatg 4080 ctagtggacg actagattgc ggtcgtcacg cgtttgactt cggataatct tgaggtagga 4140 aaatacttat cttattaggc atatctccag aaatgaatca gtagataaac aatagtaaaa 4200 cagcctatga aatgccgcag catacaatca accagaaacc gacgggttca agctggctga 4260 gtcacagcca cctggttcta ccctcgtaat gcctgaaata aacgaaccca ccagtattca 4320

aaagcggcta ggaacgggat ccccagactt ctaacttttc tagggctaag gagaaccgta 4380 acgtgtatgt atgccccact aagccccatc aaagtgtgca aaaaatcact acttttacct 4440 gacttcgttt gcaaaaatcg tcttttgaga tcaaacagtg tcttttgaga tatggtgtgg 4500 cagtgccggc agtttgctca tggttcgtag gcaaaacttt tggcgtatag agccattatt 4560 tcgactttac ggagatacat ggtagtgttc tcaaattgcg gtttgagcca tggaccactt 4620 acggccgttg tgttaagttc aatggaccgt agaggagatg gctggtattc cgccactgta 4680 tacctcatcc tctgttggtg tgaagaccac gacccatgtc tgtggttgcg gcgcagcagc 4740 tgaagaccag ctcatacaat caatattctg ggagctcatc ttaagatacc gagctggcag 4800 agettgagtg tecaateact gggtetgeea atggtgtget tgaggagata tagageaett 4860 acttccagca cgtactttgc tctggggttc ctacgccgtt ggtatctgct gcctccagta 4920 tccgcaaggg catgagcaag atcgacgcat tatcgccagt aagctctggc caacagatgg 4980 gaatcgctga gacaagcaag ctctggatgc ggtgaaggac gttcagagct ccaagtatta 5040 gtctacccca tactgggttg aaagctgatg gtgatccgct gttggtgatc cgctgacggt 5100 ggaaaatgtg geteaaceea tgetttgeae acegeetege ttgatgtgge egtacaatae 5160 taggcgtacg ggttacaaca gccagtcaga gccggcttga taatccagac cccgctaatg 5220 gcacacgttt tttatagtgc agccagcggt cctggctgca gagttttaca gatgatgagc 5280 aaatatteea ttattgtegg etatgetegt atagegtgge cageaacagg gtatggtggg 5340 acacagaaca tataatgatg tatacgctgt ataaggctgc caatgatagt aagggcccgc 5400 tggccttcgc atgctacccc actcagcagg acctggattg atccaggcct gtgatttagg 5460 ccatgtgcat gaggcagaat tttcaacctg taagttgaat acagctgcag ttgaagatag 5520 tgctggttct agttatttgt cggtggttga ctacacggtg tcgcccagag tataccatat 5580 accagaccaa ttttgatacg cacatcccat aaccgggctg ggtctagccc cgctcgaacg 5640 gagateteaa ggggeeeett ggegaagaaa eeeetgtgaa etgataagee aaaaacaetg 5700 gcatggaact cgagcaaagc cccctggatt aataaaggtg attgtttttg tcatgtagat 5760 tcaagctgat gatctcggcg ctcagaacat agttcgtcgt aactatatca gccctctgag 5820 taagagtggg atgccttatc aaggtacgga ggtaccttgg atggagatga gacgttaatg 5880 catgctaggt tcagaaaatg cctcactgag gccgaatcgc gaaagagaaa ataggaaaaa 5940

caaaatacaa aaaaccaaaa ttatctggcg gccacacttc accagccacg ggctttatat 6000 attgatgcaa agagtgcttt ctgtttctca cgagttggta tgttcctagg atgagccggc 6060 agetectata taataatace agettettge tegagtetea agtetggeaa ggttgatgtt 6120 ctgttgggtt tattatactc tgcgtagatc gattgtttgc agtataccct gtaaaaacca 6180 ggaaactcaa aaattgtgta tggaaccgat gtaattgcaa cgaacgaatc cgttggctca 6240 - cageceeggg gaeggteace ataeggttte eagaeettga agaaggeett gaaatggegt 6300 cagagcacgt cacgcgctgg cagagtgggc cgtggcagaa agaaagtggt taggcggcgt 6360 tttatggcca ccggcgttcg tacacgcggt aattctgggt ttgcagcttc aaggtcatac 6420 atcatctgct gctcctgctg ctattcctgc ttctactctc tccatttgtt tcaattctcc 6480 agattteeta taeteeeatt eteagaacae teeetteaaa eeteacatea etettgetga 6540 gctcacactg ctctaccgat atatctcctt gtaccttcgc ccctttcggc tatatctgtg 6600 aacactacct categgtgag tacatattee tecagaagee egeaacacet ateteaaaca 6660 cgactccaat attggaggat tgttgtcaat gttccagctg ccgcgcggcg ggcctgggca 6720 tgctattggc ttcttttatc ttatcaagag ctgagcctcg ataatgcctc gtttacactt 6780 agtaagettg ttteecetet eeetggttet eeeggggaat teaetgteaa gteegettaa 6840 6849 aattatcgg

<210> 761 <211> 1304

<212> DNA Aspergillus nidulans

<400> 761

<213>

ccagcgcgtc gagattactc tcacggactg tcggcgtgtc aatgattggg ttgatggccg attectecaa gtacgcagta geggtatace aagcategaa agtacggeta aggtatttea 120 gaacgtgcgg cgggatcttg aaacgggggc ttgcgcgaac gacaccttca agcaaagcct 180 ggacgacatt cggtcgctta tctacctgtc gctggtggta ctcgcgggta acgagactga 240 ccatcccctt ctccaggtca ctgcgatctt cccgggatag ggtcgaccag aaaattggga 300 acagcgcagt ccatagcttg tacgtcgtat taggatcagt atgctggagt tgggtaagtg 360 gttcaataag atcacgagcc ttgacttcag caatttcacc aagaaacctc ttgcggtcgg 420

caatgaatgc ttcgagctga ttatcaacca taacttctgc ccgacgcggg tccttctcgg 480 cgttaccgaa taggaatgat agaggataca tggtgaagtc gtcggggtgg agacgagccg 540 gggctgtcat atccacacag cccagaatca agtgtgacgc ctgcgcgagc cagaaagagt 600 (ccgagagagt gtcccaattc tggcaagtta agacgtaact caagcgggag ctcgccaagc 660 gggtcagact tcgatcaaag atggtcatga agcgattgcg catctccacg tccttagctc 720 ttgtgccaat caagaatgca tgctcaagtc tgaccgtcaa ctcagtcctg gtgattttcg agtcctcgta aatccgaatg acaaggtcaa gaaacttatg gagcatctcc qqactctqac 840 ggtgctcgaa gagcagcatc ttatggagca cagcggtctt ctctttcaat gtaggccatq attcagtgga cttgaaaatc caagtctcaa ccatatcaag gaccttcgtg caaaggcttt cgttctgcga acgctcgaca agctgggcaa gaacactcaa aaatggccga cgctgttcac 1020 ccaggtgaga catgcgtgca gaaaccaact caatcgactt aaagataaaa aatatgccqa 1080 tttcgtactc ctgcggatcc ggtgcgccct ctggcttagc tccattctgg ccattattgg 1140 tggctgcgcc aagaacatgc tctttggcca gtttctgaga gaatactttc atgacttggg 1200 ggatatgage aaccattteg getggtetge taatgaaaac gtgaccaaag aatatteaaa 1260 ctggagatat aatgaagccg caaagtccag tccgatcgca gaga 1304

762 <210> <211> 1212 <212>

<213> Aspergillus nidulans

DNA

<400> 762

cctgataacc ccaatggccg tccctcgttg ccagctaccg gtcctgtcgc gggcccttcg 60 tttggcgctc cgcagccaca gcctcggcgc acgaggccga aagcgaaacc aaagacctca acticaagee teectgeece teetetagat gatgtgeaeg etgeattigt egagtteege gcgaaagagg aagacaaggt aagcgcgctt ggcttggtgg attccagtga aatctggagc 240 gaatgaatcc gatcctgacg atgaacagtg tctctccgtg cagtgtattt attgccaaca ggttcgcgca aagaatacca gccgacagcg ccaacatctg ctagaatgcc cgacctactt gagtgtcatg aaagattcga tccctgcgaa caacttgctc cacacattcc ccgaaggcga 420 agtcgctcgg tctttgcagc ttcctgtacc gacacttgag ttggatttcc gtctcagcct 480

caaggtaaac cccaaggtcg gagtcggccc tagtatctgg ggtttgcgcg attgggtcac 540 gtttgttggt ggccagtggg cgggacgatg gggtaaggga gtagtcgtgg taagttgccg 600 gctctttttc agagggtctt gctaatagca gtagccgggt ggacaagact cccaggtgac 660 tgttagggat tctacaagcc ttcgagcgaa cttccttctg caaactgccg atgatcctcc 720 tgcattcatt gtcgtcaaga ccaatgggtg gttgacaggc gcgaaagatg tgctggataa 780 gctcaatgac cctcaacttg cggatgggat taatgccaac tcatataaat accgcgttaa cctctccatg gaaactggag atgaccgtta taccttcctt aacaacttga tqtqqqttqc cagtggctgc cgcagaggcc aagaaagtca gtcaccattc aattattccc gacgggcgaa tctgaatatg ctaaccagct cgttacagtt attcttgatg cattccgcgt caactaacta 1020 ctgctgccac cgccacgatt gtatctgttt ccgacctctc tgattttctt tccqtttcqa 1080 gcgagcactg gattgattgt ttatggggca aaaccaagtc ttcggcctgt tttatatctt 1140 gactaaccta cagtcatctg ttatttgctt tagtgatcaa ggtataaaat tgtttgagta 1200 ctatgacaga at 1212

<210> 763 <211> 1840

<212> DNA

<213> Aspergillus nidulans

<400> 763

tttttgtgca tatccaagac cggcgcgagg agaaatccgg tcgtttttgg ccgtttggcg 60 agcgctaatg cagccgatgg gcgaacactg acgtaactat cagccaggga attgatcgaa 120 tettgtgete etgtatatga gteaateeag ggaateetat catggtettg aagegeagag 180 tccacggaca tctcccgcgt ccgcggcgta agattgtcgt ctgccacact ctccaaaaqt aaatgctcct ggaccgctag cgaagcacta gttgtatttt cagcagttgg tagacaaggt 300 gagacagatt tcacttctgt tgaaccatta atatggctgc ttgatctctt gactcgggac 360 caggccccaa aatgaccacc tggacctgga cgggaagatg acggaagctt gaattgcctt tccgacaact cagagctgga gtttgaatag tgctttccca ctgcttgtqa qcatacggaa 480 gcctcttctt caaaggcctg gcgctgtgtc ctcccgcccc gcgggcgcag tttatgctct 540 ttcaggaact cgttgatcat cagtccgata atatccagta tacgttgaag tgatttgtcc 600

660 gactctggta gttcctcatc actgcctata gttccaaccg aacctatttg aatatagaac atgggccatt tgttcacagc cggagaccgg ggtcgctcct caatcccaga tccatggctt 720 gagggcacat teceggtegt eccaaaatet gaatgggaaa atageeggtt tgeetegetg 780 tacagtatgt tegeetgaet ttgegaaaac acaggeteag eteceaagga gatgaaetgg 840 accttcttgg aagggctcgg aacaagtgac agtgcagcgt gaatcgtcag ttggggaacg 900 gctgcagaaa cataatgcca tttctgcatt cttgcagcgt cgaccaaacc agcctgggaa 960 aggattgagc tgagtcgcgt tagatccaaa tcgccagcaa gaggatcatg gcgagggcgg 1020 atagtgaact ttcgttcctt atccgtctcc gagacggaca gcttctgaag cctatcatta 1080 gagatcatga gggcgacgag aagttgcttc agatcatccc actggtggtc aagctgatct 1140 ggcttttgca atgccagggc gcggctcttc acgcgaaccg gcatatttcc aaaaaggtcg 1200 ttggcagtga cccgcgttcc atggtcgcta aacttcaacc tatgatgcct cggggctgga 1260 aagagtcgcg caatcgggtg tgcgtggtgg aacatgacag tatttgtgct tgcatggcgg 1320 taatggtgtg aagtgatggt caacaatgag agcgccgata gagaagccag gaagcagcct 1380 tttctgccgt aggaactcga cgtaccgaac ctagatgtat ctaacgccgt gagcagcagc 1440 taaagtcaat caccggccaa tggagacgta cgatgagcct tccctagccc gccaccgggt 1500 teaaacteeg etggtgegat teeeteecea tegtetteaa eeaegeatee acceegtegg 1560 tagtcaacag ttacaaagat gcactgtgcg tttgcgtcca gcgcattttt gacaagctcc 1620 aagacgacgc cattcaaatg cgtgatcaac gttgaggacc tgatcttggc ggccacatct 1680 tgagggagtg gctgaattgg gtggtcgttt atcatgatgt ccaaaacata tttacaatgg 1740 ctgggcgcca cgtagcacag gtttggtttc aagtcaactg ggcaaagcaa gggtactgag 1800 1840 ctaagctaag atcgccgcac agaaggtcca gaaggtccag

<210> 764

<211> 2905

<212> DNA

<213> Aspergillus nidulans

<400> 764

aatatatgaa agatgtatat agtatggaag aagaagttaa tggatagaaa gaagaaatgt 60 aagaaggttg agaatgggaa aaatgagaaa aaagtgaaaa agaaaaggac agtatagacg 120

gataaaagaa agaaggaggg aaggaataga aaaggaaaag aagcgattgt agagagatgg 180 agaagaaaga tgaaagaaaa cttgagaaaa agtaggaaag ggcaaaatgg aggagaaagg 240 ggaggggggt aagtcataat aaccatgata ttggaagcgg gcaccttagt aaaatggata 300 gaggcagagg gcggaagaat caagtaaatc ttatgggcgc agatcaaaag cagatcatgg 360 tcagcatcac accgtgcacg agetetggga atetetagee teggteggte tggeegtatg gttgctggag atccaggtat acatagcatg cgtggtacca gccgtgatgg ctttgggctg tattctggag accacccctc tctcatcgcg ttgtgcagcg gcgcagaggg agtgggtagg 540 ccatgttcag gaacggctca ctgtcactgc ggcaatgctg ggtgatgtga aggcagtaaa 600 gatgcttagg ctcgagcggg tcttgttccg aattgtgtct gattatcgcc agtctgagtt 660 tagcatctct agggagttct gcatgatgat gacgggtgtt gttatgctgt gtatgtggtg 720 780 atgaatgcag accactgcat tggctgtact gactttatct tgttagcagc cataccccag gatctcacgc cgtacatggt gtttctaata tacatgacca ttgcactgac caagggcaat 840 900 atgaagette teacaatgaa ggeggttaae atgttgtegt ttatetegat ettgaetteg ccgctgatgg gattcatcta gttggtgccc tggatcagtc agttaattgg ctgctttgac 960 cggattcaag aatactgctc ttataagaga acaagccagg cttattcact acacccttct 1020 gatcacattg aaccgactaa actctccctc actgccaagt catcagccga ccatgatgct 1080 ctggtgacgt tccacaatgc ttcgatatca tggcaagcag ccggcgaccc tgtactcgac 1140 aatttaaccc tctatgtttt catcggcaag atcaccatgg tcattggccc cattggaagt 1200 gggaagtcga ccctgcttaa atatgggcca gactcatatc agggctggct taaaccactg 1260 ccatccagac agagcagcct actacccgca gacactgtgg ataatgaatg catccatcta 1320 ggacaacatc atcggcgtga cgtaagcaga tgaaaaaggg tacaacgcga ctattgccgg 1380 ctgcactctt ggtaagatct agaggtgctt aacgggcaca atcagtacat ggctgaaagt 1440 gacggattgc tcttagcgga ggtcaaaatc agcgagtggt acgtatatgg aaaatggagt 1500 tctcagaatg gtgttacggt tcttgctcca tcgcgcttgg acaagttgtt cacgatcgct 1560 tcatgtcgtc ctcgacgacc ctttcagtgg ccttgatttc cggcagtatt cgagtgatta 1620 gcgagcgctt gctcggtgcg aatgggcagt tccggagaac caatgctatc gtgattctgt 1680 ctacttacaa ttgtcagtac tgcgattatt ttctttttcc tttttcttta ttttggctat 1740

tcgactgaca ccagtctagg tcacctgcat ccgtttgcgg ataagaccat tctgctcgaa 1800 aacggccgca aaggtatcta gtgcacagac tcagagttta tatccagata cccacactat 1860 gccccggcca gctgggttga caataagggc ttatctgata ataacgggct tcaggacact 1920 catactggta ggagtaaagc aaaggacgac accaccagaa gtgccaggga aaacgccgat 1980 gtaaaacagg atctgtcaag gcgcgacgga agctggggaa tttacagcta ctatttccgc 2040 aagattgggg teeteeagge etttttgteg ettgetttet tgettaeggg ataettaece 2100 agttttctga tatgttctaa tgatttgtca gtagtcgact gggctaatgt tttgcagtga 2160 tctgtttaca atggtgggct gatgccaaca agcacgttgc caacccgcac ctcggaaaat 2220 atctcgacat ctacacttta gtttttatag ttcccgtgct cttcatggcg gctaggatat 2280 ggtaggtctg ttactggcca aacctgttct agcgccaaga atgcaggcta cttcttgtca 2340 acatcgtggg caacagctct gtttgtctcc attcagacct gctggaactg ctctaaagta 2400 tataccatcc tgcctcacgc gcacagtgaa tgcaagctaa ccctcgacag cgcttacttt 2460 gcgtacttcc agctgacaga cacgaggctc cattcggaag agattcagtc aacacatgga 2520 gctcatcgcg tttcacacta ccagtctttt ccttgaactt tattgaaagg tcatttcttc 2580 ttccctactc agcgacctgg tgaccacatg ctaacatgtc ccagccctga gcatctgcgt 2640 catgaggtta ctcatactct gtattatcag cgaatacatc actatcacac tccccttcac 2700 getetggtat tetgggeeet geagegaage tatetgtgea eetegeacea agtgeageae 2760 ctcggcattg aagcaaaagc tttgctgtac tcttaattcc aggaggcagc atataggctg 2820 acagtectge agattetgea gggeageett etttecatag geaatgeatt getagaettg 2880 acgccactac ttgcctggtc tatgc 2905

<210> 765 <211> 1826

<212> DNA

<213> Aspergillus nidulans

<400> 765

gggttaaacg tgggctgtat aagtagtcga ggatgggcca ggccagaaaa tgcagcgtag 60
tccaggtcct gtccctgaga aagagtggtc cccgtcgacc cctcctcctc aggcagctgg 120
acctggacaa acgtggggag cagcactact aagtggcaca gctcgaggac ctcagacagc 180

cgatacgcgc aagaatgtca acgggaaaag agcggctagt agtgcagcgg ttgtgccact cgagagcatt gtagagctcc gccggtgggg ctgatacaac ttttttcgct tccgagcggc 300 gageggegag ecceptgeetg aggetagtge gtggetgatg etteteteet aeggageate 360 cgtacaccat tctacactct gctcatcgcc atctctctac gagtgaagat gaatatctgc 420 gagtttggat tetgetegat etectegteg agttgaatae eacetaggtg cetteteetg 480 aaggtcactg atgatcatcc cactgatttc cacactggtc gcggccatac tgaaaaactc gagcacgcag gatctcgtat acgccgtaat cttcatcctg ttccggcctc gctacaaaca 600 acaaccttcc cgatcagagc ttcatttctc cttctgtccg tcttcaccga ctcttcatta 660 gctcagtgct tgcaatcact atgtttaata agggctagtg cactagccac agctacttac 720 tgctttgatt gtcgatgcta tataaatcag ccataccagc atctgcagtg tagttttcgt 780 gategeacaa gattgaaaet eggetggteg aaegeettee tgeagteatt egatgaaaga 840 tactccgtga ctacattccg gatcctagct atccgtatat cggcggttat gatggcatcg 900 teeggtgeat actaaaagee gegggtaegt etegaatate ggetteteag gatateeagt 960 cacaacgcat gacgccactc cgacggaaac gggtcaaatc cactggttga ctgcagctgt 1020 gattgtgaat actgtgtagt tgtcttctct gaccgaaccg tcatgtcagc atatgtccaa 1080 cgcacggcac ggcttgcgaa tacactgagc aatcggaatt tactcggcag acatggtcga 1140 agcatttcgc aaggcatttc ctggacaaga gcacgctaag ccaattggac tgagccgtcg 1200 cgcgctgcaa tacgtagtta gacgcatcgg ctctccgctc tataatgatg cgtgcatgtc 1260 cgtccggcga gtagaaactc gattaaatca ggtagagcca gtagagtcag taatgtcagg 1320 tagcgtcagg tagacgcccg acgccgaccg tgacagtggt caatgccgag aagctctcac 1380 tgccccattg agccatatct tgtacggctt cgcgtagtct cgctttggag acacgggatc 1440 gagggtgccc actgtgttct tattgaggat gaggtcggta gtggcagcct gacaaggata 1500 agetgegaca teggetgtte cetecegttt eegggaegge gggagacage tggetgeegg 1560 tgcaggatct cgattctaga agcctttgct gttggatcgc cctggtccca gtagtccccc 1620 agteteaatg etgagaettt ateaatetta tettgtgggt egettteaac ettgateteg 1680 tacaccccaa aattggcggt ttccgacgaa aagcctgcgc caacttgact cattgtctct 1740 tgaaaatggc tcacagccat cttattttct ctgttatatt acgagttacc tcacgcgctg 1800

<210>	766
<211>	2014
<212>	DNA
<213>	Aspergillus nidulans
<223>	unsure at all n locations
<400>	766

60 gaaggttgtt tgatattgaa ttgggagtgg cttggcagga tagagcaaga gatatcgatg cggaagggaa agaagcgaga ataggtatac cacagtgtgg ttggtatatt aggaagggtg 120 cgggcagagt tgaatgcgga atgtagatcc tgaattttct ctaggtggag gtgccttgct 180 tgattagaag aagcgcgcat ctacgtacta ggtacgtgtc ggcagggatg aagcgaagtc cctgacagcg acggttgtgt agctttatcc cttacatttc tataatgttc aggcttgggt 300 ttctgacagc atcttgcggg cggcataccg cataaggtcc tccagccgtc taggtcagat 360 ttctgtttat ttactttaaa ccattaacta agggaattgg acataggatt tatgaaagtc aggctgctat gagttctatc caaaaggcac agtaataatg ctaagtgaag catgttacac gcatatcata ggcaagggac taagctagtt ttaccctcgt aggcgccgta agctccaagt 540 600 tggtttcaat gacctgcttc tggttgtgcc gcccagcccc ggcagtcgtt gtctgaccaa gcaaaataac actctcaatc ttaacaggga catcgtggat aaattgcccc ttgatgtaga 660 gaacaccact gcggtactcg aactcaatgt tggcagtgtc agtctgctcg agcgagtctc categictaa atacaggett ceagaagetg teceategat geeagaagea atgataaget 780 ggaagccctt tttgcggagc tcggtggttg tcatcgcacc agaggagcgg atggggacga 840 tattgccgcc acggatgtga atggggatat gggtgatgtt gatattggac agaatgatat 900 tcgcgccctg accctggatt acggcgccgg tgtaccaatc gtagaagata tccttgggaa aatatgcatt gacggatgtc gagtttttct cggtgacggg ggagataaga atggcgtcgc 1020 cgtagaaaaa ctgcaggtcg attgcgaagg tatttttgtc ctctgggtac aggtagaata 1080 agggctgcag gaagggctca ccggttttgc tctggcggtg gaaggcagtg taaacgtagt 1140 cgaggagctg gtaccggatg ttgatggcct tggtcgcgga ttcagttacc gattcccagt 1200 agtagtactc ctgggggatg ttgccaatct cgttatggtt acggtagaag gtgtagaagg 1260 ctccaagtga tgcccagcgc gcacagagct cttctgtggt gtttgaaccg aagccgcaga 1320

catcagetec taccatggga atetggaaca tegagegaa ggeeaggace tgggegateg 1380
aggegeggta caacttecaa gtgetgagat tgteacegag cetatatage gttagtgeta 1440
ggtegagtec atagtaaaga tgteetgaac caatgeecaa catgtgetee ggeacetgeg 1500
tacgtgetge gagtgatgat taagggtetg acgtegggae ggegttgetg cattgetatg 1560
cgagaggeeg ageteateac taaacaacaa gteagacaaa etaacaattg catagtaage 1620
tgacttactg gttecataga gattatgggt gtegtattea acgtaacete etgegtggee 1680
aatgttggtt tgaatagtgt tetggetaag agetecagee gcattettaa ttgagtaagg 1740
ggggetgagg aggttgegge caggeageee aagettatea ecatgtgete tttteggaag 1800
tetettegaa gageetgget ggaaagteat eeggaateea nngeaengae gagggttaet 1860
gggeeggaca getggtggt egggtggaag ategtetea tagagtatet tteengggte 1920
gtgeanggaa agtgeacata tttgegget egteatgtea teeacageeg teatgtegat 1980
ceggtteagg acgaagaact attgaetee gtee 2014

<210> 767 <211> 3968 <212> DNA

<213> Aspergillus nidulans

<400> 767

atagtaagta agtcatgaaa gctcactaag agaagaatgg cggtcttgaa tgataggaaa 60 caataaggta acataagaga cggaggttga ttgaagtata ctttaagcag ttagaggaga 120 atataggcag atgtagtaga caagtttttt agtataagaa agaggttaat agagatcaat 180 aatgcaggag aatgaaggag tatgaagatt ggttaaggag aatataagtg ttatagacag 240 gatagatgga agtagagggt aatgtagata ccgggcgact atggcgatat ataataat 300 gagtgtgagc aatatgtagg tgtgacatgg caggttctca gtgatagagt agtagttagt 360 aaaaaattga acggtaatac aagaaggacg agtaatatat aaaacagaac agagttgatc 420 acgaagggta atatgtgggt agtcaaagac tagtcagtta tgaattgaca gtgaagctac taagagtcat ttcgacgtgt ataaggacaa taaaccgatt tggcaatgat gtatgtaaga 540 CCttgCtagt tagttCCgag taaaataCgg ttatgCtcgt gtaaggatga tCttaCgata 600 tgatgatgtg cagacactcc cctctacggc ctccgtgtca atcccgatgg gagtcaaggc 660

gagagcatga tcgtacgggc gggaattttt gataacctga gcctgttcaa tcaggtgaag 720 cccaaggcgg agctgtatgt tgatggacgg gtgagctggc tgtgtccgat tgagggggcg gagcagtttg ttgggatggt gcctttgcct tagtaagctg tttgttcctc ttacggcgta 840 gatcagggtt gaggttgaga ctgaggttga gaatgagatt gggattgaga ttgggattgc taggctgaat aaaggccaat aaagtaatcg atacaaaaat cattctccga agtaacaggt 960 gatacgagta tgtctgctgc gttgcaatat acattttgga ttggagagaa aggcgtatat 1020 ttgtttagat tcgggactga ctcaacacca accgttcaag caagccactt cgaaaagcta 1080 tagactttac tcaagctaat ttctctgtag tttaaggagg tttcccggac ttatacggca 1140 gccacacggc cacaggtacc agaggtcctc cgcgatttct tttttgtgtt tttgtttctg 1200 gtettgteca teatactagg catttegeea ggaccagega teeeggeeac agageeeatg 1260 cctttgaaag agaacaattc gttgttttgc gtttggctag aagaataaaa gtgagtagca 1320 ctatccagcc tggtatgttt gagccgaact tctcgcacca aaggtgagac tgctctctgg 1380 cggttgtcgg catcggtagt atcttaggag tttagggctt accgtaatgg tcgaatattt 1440 ttgttaaagt gatagaccac gattatgagc catgaatgat gctcttcaga ctcaacatcg 1500 aatatgaagg gttcagcaac cgttgtgagt tgtggcagca gctgtactaa gctctcaatg 1560 gagaccatgg ggatagactg ggacgttgcg ctcctagagc agcaggcttc tcacgtacag 1620 ccttctaatt cttccattcc aacagtgcag tgactccctc gacaatttga tggctccggg 1680 ctccggctcc tctattttct gtatggagaa actgttccga agggctctcg cttggttttt 1740 ggttctcagc tttggagtct caagtcaagg tagcaaccgt tccattgtag tatttaaatt 1800 cagtgggctt tgtgagtgcg tgagggttgg acttttgcga gcttcgcgga acgcatagtc 1860 tcctaaggaa aagcagatag acaaaacgac cggtaaggat ccaacgaaag gaatagtatc 1920 agagacatgg gctattcgcg cttgatgcac ctttctagtc ccacattcga gagattgata 1980 gtaactccct gcgtctccga atggtaggat ctctatcggc gatataaata tatcttcatc 2040 aagtcactct caaatcgcag attccgaagt tgatactctc agtatacagg ctgggcccac 2100 aatcatactg aacagagaaa cacgcaatac gtatatttct gaggcaatgc gccatcatgt 2160 atcccatttt ctcacgatgc tgtcctgacc gttctgttca ggcactcatg gaatttaggt 2220 gtctttgtat gtgtggcggg taaggcgagg acacttgtat agatgactac aaactgccat 2280

taggattaaa aatcaatcta gcacgttctc agtgctgagc gcttgtactc ctcctgatcc 2340 ctgataaatg atctaccaga aggtgagact accggcctta actgcacagc tgtcttgcgg 2400 tatatcgaag cttctagttc ggtaacggat tgaactcact gacactggct gtcaatgcta 2460 gaagagattc attccacgtg ttattacaag cgcgtataca gaccggtcag aaatctgctg 2520 cgtggaggtg gaggaaatga cagccctgtc ttagttggtc atatggtctc gaatagggct 2580 getttetggt geeetaeete gaegtegeta geaeeggeet ettetgeeea aaeteateaa 2640 caagatattg agatgtactc tactacgcta atagcacctg ataccttctg ctgattttat 2700 tgaaaaagag acgtattaac ggccatagat ttgatccatg atattccgcg aacggttcat 2760 agcaacaaat tacccatatt tatcgtaccc gctctgcaaa tgctatctct tcactcccag 2820 aattegaaat eettgtggtt tatataeega tateatgtae eggtataaaa agaetaagtt 2880 gggcggtgca atcgtcgact agatgataat gattaggatc ccccttggag gcttggtagg 2940 ctcagatgag ttggaaatat gctatttttg tttcccgttc aaactagttc tagataaaaa 3000 tccttagaga ggtggatttc gaaatggatc gtttggtctg tattcatggt gtctaaaaat 3060 cagggtatac acagtcagac cgcaactctg aaagggatat ggaatgctca atgagcacag 3120 taaattgaat atccagatcc accattgaga gcctcagata atgtagtcag gcatgctgca 3180 atagggcaat tttctacaat tctgctccag ggctacagta aggactgtcc ctcggcagct 3240 gccagttcct gcacaaagga caacctctat tggcggacag gctagctgcc aagagacctg 3300 ctccaacttt agattgcccg tgctccgttc acagagtctt acaatcagtt gaaggttgca 3360 tteggeetee teegettege tgtgttggee aategeeate eeeaegtgta tetegtatet 3420 gggccaagac cttgccaagc caagttcacg gtggctggca tgtcgccctc cgtcctgtca 3480 tcaatacaaa attaaacaca tttatatata aatatataaa tgtactacat ggcacatcct 3540 ccccaactag gccgggctgc aggtcctctc gctaaaaatg aagtcctcgc tgtcgctggc 3600 egecettgeg geagetggea eegteettge egacgaetae etetacagea aaegtetgge 3660 caagegettt gtegaegatg agggeeacta caaegtgtgt aagtaatgee atgtttgeta 3720 atgttgcctc tttgaaggca ctgtgatggc gctatggccg tgtctttccc gtagtacgcc 3780 gagetgacea geatagegtt tttecaegte aacgatgtee aegegeacet ggaceagtte 3840 gcctcctcgg gcacaagctg cgacgatcca gaaaaaggct gctacggtgg ctatgcgcgc 3900

atcaagacca	aggtcaccga	gctgcgcgac	agtaccccga	taacctgtgg	ctgaacgcgg	3960
gcgacgag						3968
<210><211><211><212><213>	768 1015 DNA Aspergillus	s nidulans				
<400>	768					
agttgaatgt	atcgtgctgc	tgttcccagt	taggaaagga	cccagtgccg	cgttaaccgt	60
ggtgtaagat	cggaaggctt	tgcgcgattt	gattggccac	aaccggaaga	cggcggcaga	120
gcagcagcaa	cggtggtgca	ggctgcagag	ctcagctggt	tccaaggact	gggggcgagt	180
tgattttcct	gtgcggaagg	ggggggactt	caaaggctca	gatggtgtga	ttcaatcctt	240
aaggtacgaa	tcgaaaatac	ctgtccgtga	actgtggacg	actggtagaa	tcctgcgagt	300
cacgtttcac	gaaggtgctg	caccctttcc	ttcccctttt	tcttatttaa	tagaaaaacc	360
agaacaaaaa	gggctcttcg	tgatgcacaa	gctggaagta	ctgtccgtcc	aagtagatag	420
acgtatgata	attcgataat	tctggtcccg	ttcctctggg	actgtctctt	tctccttcag	480
ttcttcgctt	ccaaaaatac	ccttaaattt	ggcctctcac	tctcagcctt	gactcctttt	540
tctctgctcg	tacgactcac	tcgtagccac	tcttattttt	gatgtttcct	tagaaagtgg	600
aaagaaatgg	tcccggtcac	aagaaccgct	ccgagctgca	gttaaacaaç	ataattttgt	660
gctttacggg	gattgttgat	gagttagggg	agggataggg	gaggggagt	ggtgacgatg	720
ggatggctgg	aagagactgg	gacggaggaa	ccttgccagc	agaacaggac	aaaaaagcac	780
gtgatggttt	gtcctgtttg	tcgcctctca	gaaaatggct	tagcctccca	attatgtcag	840
cagctttttc	ccgcggccct	cagagtgagg	ccaggtggag	tgtagatgta	ctccgtagat	900
tagtcctatc	tagatettte	gattccctcg	gctggagtcc	tcatttacta	tctgatctct	960
tgcgcttcaa	gctcgtggct	gcgatcacgt	tgcggtgttt	tactctccct	tggtt	1015
<210> <211> <212> <213>	769 2737 DNA Aspergillus	s nidulans				
<400>	769					

aatgggcagt ggacgcgcga gacggatccc tgtatgctgc tcgaaggggg agaagatgat gagtatgagc cattgaacgg ttgtacgatg gatggcgtgg gctaaatgag agttccctat agtcaggcgc agattgaagc gtcctctgcg atgcactatg actcgtattg ggaccttgag 180 tategaegge caeeegeeat tagttettea ttetgaaaag agagtaatee caatgtggga 240 ctacttagct gtttcctaaa agatacgatg tatcttactg gccgataata ctttctcttt 300 tgtctgccat taatatggtc ttcgcacccg cctctcgaaa aggacctcga ccacgaagat 360 cgactgccat ccgcggaggc cgccaggatt tttcaactga atagagccgt atgcggcgct 420 gtggaaaaat ttgtagatca agctgatgct cctgaaccgt gtgaagatta gaccttggcg 480 caaccegcaa gttgggatet gacettgaac eegecaeggg ttttgttatt gtegagggtg 540 agtgagaaac ttgaggtcct gtctcgtgta gacagataag aaaggctctc tcacttcttt 600 tctattatat cttcagattc aatcggtgtc ttgccttcac tgcttctttt tctctcccat 660 ttatacaccg cgcacgtgcc ttttaacatg gtaactcgtc actgttattg atttggaggt actttcgtta cctctgacag gttcgattca ttttctttct cagcttcacc tgaatacacg cgttccaatt gctattgcaa gcatttcaga gtgcacgacg ttgcacaagt gacgattcat 840 tgggtctatc catatgtaca taattgcggc aggccaatat cagatccaag tacagaactg 900 geggageget aegataacag ggecaccaga ggtateetgt tagactagee ttgeteetta 960 agccagttgc ccgctgtttc tcctgaaagt ggcgcgagta tatgctgctg tacaactacc 1020 acctgcgtcg cgtgccaatt tcttgcctca tcttactact aaagaccagg tatatgctga 1080 tattagettg taactateet gttatatatt aatatgaatt cagattgaca teaacaatgt 1140 gtcggaaata tcatcttgag taacctacta ccgcctcgta ggccaagtca agcctgcatg 1200 attetgegea atteaettaa tagtteagtg ttgtgteaac etteeecea aacatgeeat 1260 cattgtttcg cgagacccgg tacgttaaag cgttgggagc gctaacctag ggacgtctac 1320 atcaagaccc atacccccaa tgtgaatagt atatgacccg ggcgcccaat actggattgc 1380 gatggtcgtg tgtacctctt gaacgattga gtctgggaag gaggtataga tctcgtttcc 1440 ccactgccca tcccacgtat tgattcggat tgtccgatca tagcggttga atgcgacgtg 1500 cagagaaata tggccatgct catcccagag gctcaaactg ttgtggtccc gtgggtcgtc 1560 gcggaatcca gaccagacag ccccaagctt gatgttgagc gtatcacccg atgccataaa 1620

acggttgtac tcagccacgc cctggctgta gtaagcggct gcctggacac cagattgctc 1680 taccagtgtc ttggtgcgcg cgttatatct ggagcgcagg ttagttattt caagaatcat 1740 gccttcacct tatattcagg aaagattctc tcatacgtct tttacttacc tggcgctgtg 1800 actatgaggg_ctctccatag cggagaggga tacatggcgg cgtacgagag cctcatcatg 1860 aggatattcg ggcaattcgt ggttggaggc catggttgaa tgtctggaga ttgcgactgc 1920 ttgatcaatg ataaatctgc ggttgatcaa tgatgaactc taggtaatag atgggcttct 1980 tatatgtgtt ttcaggctaa ctcactcagc tgtaacctgt ttgtgtttgt ggctggctgg 2040 gtctgacgtg gctagggcga aactacagtc aaacacaaac ataaacagag caatgacagt 2100 gcaagtctac cttggcgtta gcgcaagaga ttcatcaata cgaaaaatcc taaaggttgg 2160 gtggaccaac atgtttgagt atagtttgct tacttctttg atgtagccgg gagaagtaca 2220 cgaataaagc ctgaatggaa ccagaaaaca aagaaatatc cattctcagg aatcactatt 2280 cacttggaca ttagtaattg ctctgttgct tctttttggt agggggaaat tattcagaga 2340 ctagtcgcct atccaaatct tcagttaatc cggacgctca gctgccactg ccaaagctaa 2400 ttacgagggg cgggatagtt agcttggtac tgtggcagct gaaatatccc tgattattgg 2460 agagtttgca tgacagctgt tatagcacat tactataagt acatcctgca cattcagcaa 2520 gccacactga aagtcctgtt ctggcttcca ctgtaacggg cgtaggcagt attattttca 2580 actggctgtc ctgtataaac gagtatcaca agcttagaga aagaaaaaga aacaagagat 2640 aaaagcgcag atatctccgc tcctcccttt atcacccttt tctgatcata cgtcaggact 2700 tctgagttcc tggacctgta tacgccggac ttcatgc 2737

<210> 770

<211> 3212

<212> DNA

<213> Aspergillus nidulans

<400> 770

tgactcttcg atcatatcct ggagcacgcg aaattctccg aaggggatgg gtcaccgaaa 60
agttcacacc ctttgacccg gtttctaaac gtatcgtgtc agtggtcagc tgtgatggaa 120
tcaggtacac ttgtacaaaa ggcgcaccaa aggcagttct ccaaatctcc gaatgctcca 180
aagaaacagc tgatctatac aaagcaaagg cacaagagtt cgctcatcga gggttccgat 240

ctttgggcgt tgctgttcag cgtgaagggg aaccttggac gctcttaggc atgcttccca 300 tgtttgatee geegegagaa gataeagege acaegateeg egagteaeag aacetgggaa 420 tcagcgtgaa gatgctcaca ggcgatgcct tggcaattgc taaagagacg tgcaaaatgc 480 tegeettggg taegaaggta taeaaetegg ataagttgat eeaeggeggt eteagtggag ccatggctgg tgatttggtt gagaaagcgg atggctttgc agaggtgttc ccagagcaca 540 aatatcaggt ggtccagatg cttcaagaac gcggccatct tactgcaatg actggcgatg 660 gagtcaacga cgcaccgtcc ttaaagaagg cagattgcgg tattgctgtt gaaggagcat ctgaggcggc ccaatcagca gcggacatcg tctttttaga gcctggcttg tcaacgatca 720 ttgactctat taagatggca cggcagattt tccagcggat gaaggcatat atccagtacc 7.80 gcattgctct ttgcctgcat ttggaaatct acctggtgac atcaatgatc atcatcaatg aaagtattcg tgtcgaactc gttgtcttcc tagccctctt cgccgatctg gcaactgttg 900 cagtggccta tgataacgcc tcgttcgaac tacggccagt ggaatggcaa cttccgaaga tatggttcat ctccgttctt ctcggcgttc tgctcgccct agggacatgg gttatccgcg 1020 gcacaatgtt ccttccatcc ggcggtattg ttcaaaactg gggctccatc caagagattc 1080 tgttcctcga ggttgcgctc acagagaatt ggctcatctt tgtcacccgc ggcatggaca 1140 catggccatc catccattta gtcactgcta tcctcggcgt tgatgtccta gcaacaatat 1200 tetgettgtt tggatggttt agcaatgaaa ccatgcccac gaacccaaaa acctetttcg 1260 tggagaccag gaacggttgg acagatatcg ttaccgtggt ccgagtctgg ggctactcgc 1320 tgggtgttga gatcgtgatc gcactggtat acttcatgct gaaccgattc aagtggctgg 1380 atgatctagg ccgatcgaag cgtgacaaag gagacctgaa gattgaaaat cttttgggtc 1440 atctagctcg gttgacggtt gagtacgagc agcctggaaa gccgaaggga cggttcttct 1500 tggctacgag taaggaggaa gaagaagttg aatagggaat tgatccgttt gctatattcc 1560 tttgttggtt tggtgactgg gtggtgatgg gtgagcgatc tggctcagtc atctgcgcat 1620 gatatgttag ttaccataat gcgtcttgat agttaatgga ttagtcaacg taatacatcc 1680 gagaagctgt gagtattaca gatattaaat tgatattatc tcattttaag cattaagttc 1740 ggcgacacga agtcatggcc atcgccgtaa aaaccagcta ctcatgtata aacaggtagc 1800 agaggtaaat taagcattaa cetteteeca cagtgtetee aatteattae ceategeeet 1860

ctcagcttcc ttgtggagtg cccttgttga cagggaacgc tttgatatgg cagcagccat 1920 ctcctctcga gccagttcaa ctgcatcaat gtatgttagc cctccatctt cagtaaacac 1980 agatagggga aaataaatac catgtccaaa gacagctgca cgcttcccac taaacatagc 2040 atgcggcaca ttcgtgctcc catcggaatt cgcatcgccg acagcaaaaa cacccgcacg 2100 actagtcctc atgccggggt tgatactcgt atcgattttt ccatccttca tcaccagccc 2160 aagatcatag ggaagactcg accgctgcgc cgtctcaaag ttcgtcagga atgcgttccg 2220 cacaacgggc tcgccctctg tgaaatgcac acggaagata tcgaattgct ggccaacgtc 2280 attccggttc tcaccaccgt cttgcatgcg ctcgaaggag gtgattgttc tgttatcgat 2340 cgagacattg tacgcggcca tctgtgcctg ccagtcgggg tagtcttcct ccagagccga 2400 gacatactca teegtgtacg agecatteae aaacgcaata atategetat teagtgtega 2460 gateteaagt aegetggaea egatatgegg gagagtteeg aggateeeaa aaggetggte 2520 geggtgeteg tateegteac accagggaca ceagaagatg ceettteega aaccetegat 2580 cagaccggga gtcgagggca ggatatcgac gacgcccgta gcgagcacga ctttgcgagc 2640 cgtgtactcg gcgcctgtgc tgtccgttgc gcggaagaaa gtcgtcaggt tcgtgttgtt 2700 ctgcgagcgg gcagcggcac gaaagactgc gggtggtgtc cctgcatgga agttagtacc 2820 ttcgtctcta tctcatgagt cgtcagtaaa tgggacgggg cataccgtcg tttccaatga 2880 categtgeat etecegegtg ggateattge ggtagtgace egagteaaag aegaetgeet 2940 teegtegaae aegagegagg eegeteagea egetgagaee tgeeggaeea eegeegaeaa 3000 caatgacatc gtagtctgtc tctgggatta cggcggagag agtcgtgccc gctagggata 3060 gggcgagagg gaggaggcgt gagaggagca ttttgaactg aaccactaca ggtaccctgc 3120 actatagege gattggaetg getgaagget ggetgetege tgetteatta eagataaega 3180 3212 aggaggggga tatttatgta ttcggaaggt at

<210> 771 <211> 4617 <212> DNA <213> Aspergillus nidulans

771

<400>

taaaaaacct ttttttttgg ttgtgtgtaa aaacaatttt taaaaaagcc cttggggggt taaaaaagca cacaagtccc ccaatgagaa aaaaatgcga gcttcatatt tccttatttc tgacaagagg ccaggttcaa aaacaaagaa cccttttttg gagggggggc ctttccatat gatacccagc aatttaccca cattcaaaca ttcggtaaat ttggtgtcaa taaggaataa 240 300 agtcccctta tatccgccga gtttcaaatg gggccagaaa gttccgtggc gaagggccaa aaagccatct tcaaccccta aggcattgcc cttcaagtat ggtcacggaa acaataatca 420 ccctcacacc tacaaggagg accggcatca ggtcggtccc ggaatattca aatccgcggt cagcaggtaa attctgccca taccccgcaa ggttcattac cggtacagga caattcttct 480 cgaagtctgt tgccagttca atccttatgt tcgtaatatt tgccctaatt gataagggaa acatgggcgc cggtcctttt atgcctcttg gcatgttctt cactattttt ggaattggtg 660 cttgctttgg ttgggagaca gggtacgcta taaatcttgc tcgagatttt gggccccggt tggtctcgta catgcttgga tacggaactg aggtgtggaa ggcaggaaac tattattttt 720 gggtaageet teagaetaat aetteaagtt teagegttet aacaateegt eteteeaaag 780 gtaccagttg tggccccctt cttcgggtgt acgttcggcg gctggctgta cgacatgttt ctctacgtcg gatcagatag ccctgtgaat atgccgtact tagggctccg tcgcttggtc agaccggacg ctgagaaaca ccatgaagcc catagccgtg cctgaacaaa gtaaatgttg 960 agctaccttt attagagaag atatcattta cgacagtcag aaaccgtcat ccctacacgt 1020 acaagagtca tatgcggtat gcatactttt tcagcattgg ttcatgatat tttacatcct 1080 atcatcaagc aggtctggac attatcgtct tttttgagca tgtatttcag attgcgagcg 1140 gatctacatg tggtgatgtt atgaaggcga gttaaagaaa gtgtggatta tttctcgttt 1200 gtatttaggt catcgcatta gtcttttgtt cgtcgcttct tcatccaatc tcgattttag 1260 caaagggttc ccaccattta aactagataa aacccactgt caagtcccga agtctccatg 1320 agcctaaaca atcaaaaggt tgcgttgcag caacgattag tggatcacga cctctgtccg 1380 agtggaggct tcatcctaga taacggtggg acgacaatca acacatacat gagtctgaac 1440 ggctaaaagc ctggttgaaa gaaacggcta agtaatcagg tgctgggggg gtgcgggata 1500 cagctaatgt tattatccgt aagcagcata gtgctctgaa atggatggga ctgtctttca 1560 atgcctactg attgatgccg gattcagatt aagatttttc atgttaagaa gttcgtaatg 1620

atgacaattc catatcaata atcctagcca tactgagagg tggatttgtt aggatctccg 1680 ctaaggagag catgaccgca gaattaggta gaccagatga gcgagctaga ggcatcagcc 1740 cccagtgcct gacatcaatc aactccaagt gtctcaactg attatgtaca gatctataga 1800 tggttgcaaa cggacaagga tatagtacaa ggagaagtag ggagctggtg aattgacgga 1860 agatggaaat tttacctcga gggatcctgc cgtttccact tcgaagactg gccatccaat 1920 cctggaaata gatgtaggaa gaggagggag aaacggacgg gaaaattcat cctttaagcc 1980 agegeegtaa eegtaagaga attegtttat tegtgaatgt tegtegegta tetetagaga 2040 gtcgtgggtg aatgcgcctg ccagcttgga agtcgattca gtagtttgtt gaatgatctt 2100 teteaggeag atactageag getacetaga agegeacaag aggeaceeaa aaceeaagag 2160 attttgaaga tgcggttcgc ggcacttatg gtgaggccat tgcgatcctg tcctgacgtg 2220 gctgacactc ttctaaattc gtcggtagtg gcgtcggata gctctgctgg gtctgtttca 2280 ggaaacaccc aacgaggaga ttcgtccgta ggttcaaggt cggaggggga gtataaaccc 2340 gaccagaagt gatacgaggc agacatagac gggcgcatat actgggttgt gaagaggcat 2400 cgctttagca tgaaatttga cgagggtata aaacggaatt gtgggcaatg ctcactcata 2460 gaggacegge tgggtggetg aggtttteeg etgecageaa aatgecaate teetggeaag 2520 tttgtggacg gagatgagtc cgaatcgtcg tcgctacttg gccgggggac ccaaggatag 2580 atactgggcg tggagaaact tgtggtttcg cgatgcgttc cctcaaaggg aatcggcccg 2640 ctgtcggcag tcgcggttat tgagggcacc gtcccgatat cagtcattga ctgagccgca 2700 ctattgccat tgatcttgcc accatctgat attattgact gccatgaccc gctgttgtca 2760 ctgtatgtat aagagttgcc ggtcgaatag tcggtcacct taatggactt caggtacatc 2820 gtgaagggtc cagcggtata atcagtttct ccccccgccc attctacaag tatattagca 2880 aatteegtta tatatattge eetaacaggg aegeagagag agataaaete aeggategtg 2940 ccctcattat tgttggggtc accaccggcc cagactccaa ctttcaccat cataggtgtt 3000 tgaggatatt ggttgctctc tgcagagtcg ggagtaagta cacgaacagt gttgccgtca 3060 atctgccata cgacatggga tgaagtccag tcaatggtat acgtatgaaa ggaatcgtga 3120 tttcctgaat tggcatgggt agctgcacgg ttataggtgg cggtgttgcc ctttccaaag 3180 taatttgttt ggacatattc attattgccc ccaagccact cccagtcgat ttcgtccaga 3240

teatetgatt geaagaegge actaetgaeg atgeegaete eaggtgegge ettaateaea 3300 aattegaegt gteegaacat gatgtaeeag teegaetgta teageggage ategeettgt 3360 tttgccacgg tgaaactcgc tccgtcgctg ccataagacg gcgacatgac ttcggtaaag 3420 teateagatg egeeetgggt gaagtegtaa ttggeggage egeeeagtge aggatetgeg 3480 ggacaacctt caaaatatta gcattttagg ccccattaac gggcagaggt ctcactttgt 3540 tccagcggat tgcagtcggt atatgtttgg gccgcggcca cagccagcca cgaaagaaga 3600 ccaaccgtcg agcctttaag ccggaatttc atggtgaagg acgtctgaaa tagatgaacg 3660 caagagtcaa acgaatcaac caggatatgt acaatttgtc agtcaagaat aaaaagcgag 3720 agttgcgacg gtaagaaaac acaaggatat ggaggtttgt cgagatttga cggttgttgt 3780 tgttgctggg atgtcgtggt cctcaatgca gcagcttcgg cgtccggtct atcaaggaag 3840 gtgcaggtcg aacgaccaga gacatccaaa tgtgaaaggg cagtcatcat ttctagtgac 3900 gaaacccata gcatgctatt taaagagatc ggcctaaatc atagtgaagc ggctgatgtc 3960 aagcccaaaa tgtcttgtca gcaggcagtc gggtattaga ttcgtccagc caccagattc 4020 tcgttctggg ccaggcctca gtgagctcag ctagattcag gcgatatatt gactttcccc 4080 gattgggagt cttgggcttc tccacaaaag tcacgggacc ggtggctggt gatcaagaca 4140 acagettatg gttggtcaga teactgegee tttttgaceg ecaeggacee ttgatgatet 4200 catgcgcaat gcaagggcat ggtttcgggc gggaaacctc aacacaaaga atgatgcact 4320 atatacttgc tggatatcct ctccctagcc gctatcctgg gtaatacaag cagcgtcgca 4380 ccaactgctt tattgcaggc taagccggga atgatgggaa ggaaagacct aaaatcacgg 4440 tgactatact tcacgttgtt caccaattaa agtgccgtag gtctgctgca ctgccaagca 4500 aaggacagac ctggggtttc caagcgcgct ccacgtccaa taaccggcaa cctcataact 4560 ctcataaccc tcttagagaa agcatccaag ttgaggcctg cagagaccat tataaat 4617

<210> 772

<211> 2951

<212> DNA

<213> Aspergillus nidulans

<400> 772

60 aacatgcata tetgtttgee ageegetgea eegetetgta aagtagaegg ggteeeteat gtgcgaggca attattttta aaggtggtgg accggttaca ctgttctggg tggccctctc atggacaacc actggtttgc ggaagatcga ctcctcccca agctcctcaa gatctggttt 240 aagcggctcg actagagtcg agtggaaggc atgcgaggtt tccagcgact ttaccttgat tgatgacaac ctgttgtcct tggacagtac ctcgcggaca acceteattg cttttgtcgt 300 gccagctagg gtaaatagac gagggccgtt gaaacaggca atgttaacgg ccggctcatt 360 gggactggcc tcatgggcgt tatgcagtaa tctctgcaca agttcgagct cgccgtcaac 420 480 ggccatcata gagcccctgt ctggccccca tttctcctcg atgatgcgcg cgcggccggc 540 aatcatcctc aaggtgtctt ggagagacag cgtgcctgac acgcacatgg ctgtgagctc gccaaaactg tggcccacca gtgcagcaac atgtatgccg ctgtcgatcc aggtctttgc 600 acacgagtac tgcagcgcga actgcatgag ctgcaactcg acaatactgc ttctgggagt 660 720 tctgtcaaaa attgcaggaa gtatacctcc cagaccgaga gccagactcg tttcgtggca gtgggtcaga tgacttttga gcagtttgaa gctgtcaaat gcctcacgat ccaggccaac 780 aaagctggac ctttggcccc cgaaacatag aatgaccggc cgcgatgaat ctggtcgagg accagatgtc agtgtatttc ctccagaagc aaagtcggcc agctttgcct ccagctcgtc 900 tacggaggca cagctaaaga tcagtgcttg cccgagattg cggttggact ggcgtgccaa ttggaaagac aggttagcga ccgtgaagcg aggatcgtct gcctttcggg accgcagcat 1020 ctggacgagc ttggcggcgt atgaccgcaa ggactgaacg tccgtaccgg agagccagaa 1080 tggacgtctg ccagcacttg ctcccttagg tatagcgctt tggttgagat ggggaacacc 1140 tgcctgtgtg acgacgagcg acgcattgga accagaagcg ccgtaattgt tcaaaagagc 1200 egegeggaag cetggattee atggtetgag getggteggg atetegatgt tgteggaagg 1260 taaggcctcg agcttagggt taatcttgct aaagcccggt tggggcggga ttatgccgtt 1320 ttggaccatc aacaacactt taataagagc ggcgatgccc gaagcacatt caagatggcc 1380 gataaggcct ttgacagagc ccagagacag aggataggct cgtcctggcc cacccagcac 1440 cgtgcggata ctgtcatact ctgcgcggtc cccgacttgc gtcccggtgc catgggcctc 1500 cacaacagag atttgcttag gatcaactcg cgccttgcga atgacgccat tgaaaacatt 1560 ggctagggat cgaacgcttg gagccgtgat tgctgaacag ttctcatttt gattaacaga 1620

ggtcgcccta ataacgccca caatctggtc accatcctcg acagcgctgg atagcctctt 1680 caggaataca gcaccagcgc cttctccacg gcagtaacca tctgcagctg catcaaatgg 1740 cttacactgg cccgtcggac tgaggaaaga cgcgccatcc agattttggt accattcggg 1800 gctagtaatg acgttgacac ccccggcaag agaggcatcg cactcgccgc tcaagattgc 1860 cttgcacgca aggtggatcg ctagagcaga cgaagagcaa gctgtgtcga cagtgactcc 1920 eggeceaete catecaaaaa agtgaetgat ettgeetgee geaaaggaet ttagatttee 1980 tgtagccgta tacgctgttg gcgggtgaca ggcaacgtta ttctcgtagt cagtcacccc 2040 aattcccacg tagcagccga catgcttgct acgccccggc cgattgaagt agccagactg 2100 ctgcaccgcc tgataggcta cctgaagcat gattcgatgt tgcgggtctg tcgatatcat 2160 ttcccggggg cttttctgga agaatttgtg gtcgaaggtg tcgtactcac gaatgaagtt 2220 gccaaaccac tttcgctgcg tatcattctc gcgccatgct tcgtagtcga agtccacgcg 2280 ctetggtggc accteggtgc actgagaett tgetgegeae acggtatece aaaactegte 2340 caggicactg ccgcctggaa agitgcaggc cattccgacg acggcaatag actcgicttg 2400 gccgctgtcc tggagcgtat acagcggcgc gggccagtgg cccgaaccga cgtctaagtc 2460 gagaacatge gecageettg geceeagett geggaggaae cattgaggta taaagegetg 2520 gcttccaaag gtaatgacaa tgcctggatg gctgttggta gactcgtgga gtttcgtata 2580 gagtttatgc cagtctgcct ggtcagtcaa catggctcga gcagccgcac catgaaggct 2640 tetgtecaaa ggaaacteet egeegteagg ggetegegtt etaaataega gtgtggaage 2700 accagggaac tggaaggatg gatcggagtc gaacaggcgc atcagagaga ctgcctggtc 2760 ctcgcggctc ccgcagtgga atggaccacg taaagcggtt tttgtgtata tgaagcccgc 2820 atttgtcaat tecetetgaa ttgeatttge ateattetta ageatggtga gtgtegeaag 2880 acgageetet gaaattaegg agaeatagge etggtgaaat gggattaatt etgeaeaagg 2940 2951 tataggaata t

<210> 773 4481 <212> DNA <213> Aspergillus nidulans 773

<400>

aagetettea geacattigt eectacigtt teettegace gateeettee titeetatgt ctcctacgaa tctccacgga tcttactatg cttggacacc acacctcgtc gagttacatt tctatgatac ctcaccgcaa gaatttggct tctcgaaaac ttatccttca gccctatcgt 180 cttttaatct gccgcccgt tttcctgtac aatgcgaggg aacccaactc aatcagccaa 240 300 tcacagtaca tactcatgaa tgggtcgtct acgagaccct aatcattgtg cgcagcagtt ctggacctaa tattggccta tcttacgggg accgcggatc ctcgtgacgt ttggaatgcc 420 gaacactgta catatatgaa aacacccact gcagttgctg atctggttgg aagagcagaa 480 acataaacac attagtttcc tttgttagag aatggaataa ttccaaataa tcctcctgtt ctcttgtatg gtgtagacat gactatacga agcgtgaata gggatttttg gtgtacaaca 600 gatattgtaa gccttaaggc atcaaatttc tccgcttccg ctctccaccg tgtgcgtcgc 660 atatcgtttt ctcacaacac actataggaa caccagcctg attctttgaa tctcgttatt cgccatggaa atcgacgaca ttctcgcatc cgtcgaccac accgacatct ccagcccgga 720. gtctacagcc ctcgaccacc aactcctcac ccgtttctgg gtcgccgagc gcagcgtccc 780 agagettetg ecetggeeeg egegattgat ggagegeatg atggaaegeg taeggeagea 840 ggtactgaaa ccgatctcta ccccttacat ctctgcatat cgggtcaatc gctaaagatt ctgcagatcg aaacgatcga agacctcgcc gccgcttcct cagaaccaac aagcagcaca 960 gtaaatccaa acgcaacgct caccetetee attetgcaaa eegacetete eegeagteaa 1020 tatctcctcc gctcattact gcgcaatcgc ctctcgaaac tcacaaagca cagcatgcat 1080 tacctactic tetettetea caateeacea aateeeceae cageeteggg aageteegaa 1140 gcaaagtacc aaacgcctga agactcagta cccctcccgg acccagacaa cctcccaaga 1200 togtcaccac teagteecte egaaacaacg tteetetata cacaccagea actgetegeg 1260aaacatttcg ggtcgagctt tctgaatagt tttccgccgc agcttcgacg gttggatgat 1320 aatgcgggcg ggacgagtat ggtgcagggg ccggatacgc gggaggctgt ttttgtaagg 1380 tgtttggcag atgaggtgct gcttcttgcg ccgccaggcc ccggcgaggg tgatgatggg 1440 gaggaggtgt atgggggtac gatgaggatg ggagacgttt gggttgttag gtgggaggct 1500 gttaaggagg cttgggagag gggagatgtg gaggttttgt gatcttgctt tatttgtcga 1560 ggtttcatag atgggcattg ctttgcatat ttggcgttga tagacatttc ctctttcaga 1620

agatacctcg gtgatttatg gaatacattt acattggaca tatcatggtc gaggtttcgc 1680 atgtttttgg tgtgtttaaa ctaaaataac ggaatcatga tccaaatctt atcgatcatc 1740 agcgccgaaa cccataagta atgccatcgt gtgataaaaa tgaaggtggg actcgaccga 1800 tgcacaagte ettagatgtg agaagagaca ttgatagtet atggeecaga gaetteetta 1860 ctaaacccta ccgcatgcgc ctcgcccaga aaacaaaaac tgaagtaaaa acaacagaag 1920 atgagatgaa gaagttcacg caacataacc gtatgtcggg gggtcctcgg aaacacgctc 1980 gaggtactcg cgatcaatta gactttcgat tcgccgcttg accatgttaa cgtcgggtac 2040 gaaacgggca gataactggc taagcacttc gctaataagg tttgaatgga ttaatgtttt 2100 gcgttgtcta tacaaagtta tgtcagcacc ggacgtcaaa agagcagaag caacatactt 2160 catgatgcgc acaatagcgg cctcaatact gccgccgcgc tcgttgttca tcttctcctc 2220 tgtctccttt ctctggtcct ggctctcgac cttgttggct ccgccgctga ccacaccgat 2280 tcgtactttc atgaatggac tttggaaatc attgttgaaa tagaacttat ccgtcggttt 2340 gacgtcccta ctcatcggga ccttcttgag gactcgagtc ttgggtgcaa cggcaagtga 2400 ctgtaagttt cgaatgagat cgttatctgg aatccgtgtg cgcgcctgga tctcctcgaa 2460 tgtgagggac tcgcctatgg gaatgtcatt gaaaagtaaa agaataaaca tagcgtaagt 2520 ggacacgttg agttcgtgac gctgcacttt gccatttgac cgatgaaaag ttgctttaat 2580 gtcagctgta cccatacttg gctgccacga aagtttgcgg ccgctatgtt tgtccagata 2640 gaacttetea aagetetget tgacagtete aaceteetta gggatgatge acggaagete 2700 aacctgacca tcccttgagc tcgacattat ttccattggc cacatagtgc tggtaaggac 2760 attgatgtcc agctcgaatc gctttttatc ggggtcaccc tgttcccgta caaactgttt 2820 atagettgea gteagateet eegatatggt eatgteteta aacatggeet etaategetg 2880 ggtgaattga ttgccgactt ccatcttcat tttggagatc atctgtctct ctgcgtccat 2940 gctcatcgaa cgcttcatga gtagtcgtcg agaaaggtgt tttttgtagt aggcctcaaa 3000 gcggtctttg tctttgatat aacgcagcag ggtgattccg ttctctagaa gagcatcaac 3060 ctcgttgtcc gttttaccct taacgccctt cttgaggttc tcgtcaaaaa agagcgaaag 3120 aaactctgag ctgcgggggg tggaattgag gaagctcgaa aaacttgccg taatcgcgct 3180 ttgtagcacc tggtcagacc caaaggcatc tttccagata ccatcaaact tcttcttgag 3240

ggcaagaatg tcatccaccc atttgatggc agatgatgtg acttgattca cgggcttctc 3300 tttttccttc tcttttttct gacctgcgtc tgtcccagtt gacttaggct gtgcaggtgc 3360 ctgtgctaaa gcaaatgaag cattgttgat ttcgttaccc atttcgacta tacgcttctg 3420 tacageggea gteagatggg tetttttagg atecaceegt gegetgagag cataaatett 3480 gettagattg tetateetgt egtggteeag catgactega acceeggtee ceteaaaatt 3540 gacaacttcg gccaaattat tgcggatcaa ctcgttatcc actatctcct tgatttttga 3600 ttcgctaagg agagagatcg tatactgaca gcgttccttt tcttccgcta tgcgagcaga 3660 gacaacageg cagaacgtag cagegtegae egtttetage agtegettge ceteggegeg 3720 atagaacgct gcgcttgcct ctaagtagtc cggttcaaaa gacgtcaaat aaagcttaga 3780 agactectet teegeeteeg tittegtacag geeeteeage atettaatge agetgtggat 3840 taaagctcgg tctatcatgt gccctgatct ttccaactgg atcatgaata acaccgtaga 3900 cttgagcaca tcagcgacga cggcattatt actcgacgac acaggtgacc gcaaaacgtg 3960 ategegaaat aatgecatgg eggeggegta tatggaaaet tteetaageg caaegaeteg 4020 atcctatgcg tcgattcctg cgttaggggg atccaatcag cacaccaa ttgacttacc 4080 atgtacatta aaacgtccgt aatcatcttc atacagatct gatggtcctc ccacacctca 4140 cttagggccg aaaggaatct ctccccggtc tcccgcctct ccgtagcctc cgtaaattgg 4200 tettgeatat ceaeggeete tttggegage aacageetag gegtgattge ggeaaegaet 4260 cgcttttgaa cttcaccaca tagccattct ttctcaagtt cctttgtccg ctcgtacaag 4320 tetteggeae getgaatttt taegatgeta taggegttee gatatagttg etegaaegae 4380 aactctgagg cgtctttcgt atgtatatat ctttagagac gtcgataaat ccttccaatt 4440 tttctcgaat tcgtctccgc ttacgggaat tccctagcgc g 4481

agatcatgat tggcggtgcg ctaatttagc tcccctcatg atttggaatc atttgctttt 60 catgatttac ttgaaacggc gatgatcggc accattcttt caatttctct ctactctata 120

<210> 774

<211> 1540

<212> DNA

<213> Aspergillus nidulans

<400> 774

gtactctgta ctcagagtct actctcacta cactttccgc cggtactata tgctattaat 180 gacgagatga tgtatatete atgetggeag etetgttgta teaetattat ggeecetate tacagacccc aggtcgccct gcagcgaatg aggcagccac ccgaccttga ttcctaggct 300 tragretteg gratargara tetettraat cetggaraga greegagtra tagaatggtg 360 accgggggct cgtgctactc aatagtcgat gcattcatag tcactcggcg cggccgcgca 420 aggaatateg ettteetace tgetetetet atagtataeg getataeget eettetgeag 480 ggaccggaca cgaaactccg gctggatatg acacctcgca tcgtggctga tcgccccct 540 600 ggttcatcac tgtggcggac acgcggtcgg aggtcgcctc gtcctccaca ggccagacta 660 togatoagaa accoagaaac otggttocaa otootoacgo gacogottag otoacgoogt 720 acctegacaa tegtgagagg egaetgegta etgagaatte atgttaetet gtaegggegg 780 cgactcgggg acatcgggaa cctccccagc ttcttcggct cggaggttgt actagtctat 840 catctgtctc tccccggcgg tttgtcaagt tgcacattga ttccatacct gctggctaaa gacagacgga tgctgaacgg gtgctaaaag gatgttgaaa gtatgctgaa agtgtcctga 960 aaggtteeat getggeacte egectacete gtatgeteta ggetegatee gategegttt 1020 gtctgatagg ctgatctggc ctctactgag ccccttgatc agctcaggat atctatttat 1080 ttttttcccg cctcaaattc tttccagaaa ctatcgacgg ctaccattgt cgctccttga 1140 tttggctgat tcgtttcacc gtagagccag cgttaagcgg gcgttgatac aaaacaccgc 1200 gtagacgata cgatgacttg cgacaagcta gcagcacaga acaggcggtg gtctgtggaa 1260 taactgcgga tattgcgagg tggaattggg tggtgggtac gcctcctgtc aaactgtcat 1320 cgcgtccggt acctgatttg ggggtccaat tacgcgqctt tccaqctqac ggcqacgcaa 1380 ccgggacggc agtgcctggg tagtgcccgc catgagctag agttagacgc cgttgggccg 1440 ccgccaagcc agccagacag cgtgccgtcc gaaaggggga gaaagtgtga aagaatcaat 1500 gacattcaaa aatctccttg aaattatgta caagatacgg 1540

<210> 775

<211> 2662

<212> DNA

<213> Aspergillus nidulans

taagagttac catccaagta attgacattc tgtgaccctc ttttttttca gcgatagtga 60 120 ccgttgcagg ttagggcggg actttttagc cctaagccga gctgtctcag aaccgaaagt gtetgtcage ceteagttte gegaacagea ggageggggt teagggetag ttaacaceee 180 ggctggcatc ctcgagttaa ctcggctatg gtaatttttg agccgcttgc caaatttcag 240 300 gtcctccata cagactgggc ttgcaatagg cctctcaaac gtttgcggcc agaagcggtg 360 cccaacagct ctaggcatat ttaaggagat acagaaagtg gaaattaaat ctctcaatag ttgaagaaat ggttttcgac ttatcaggta ttcagagtaa gtacaataaa tgctgcagca 420 tttaatgccg ttaacgtatc gtgtcataca gaagctatga cggaataaag ccaagagact 480 caacacatgg gtatcataat caaaacaaaa agagaacaga gaccgcaaag gcaggtccaa 540 600 ctggccgaag tcgattatgg tcaagtgaaa aatgccgcaa ggtccgtgat taaatggttt aagttatgaa ttagaagttc caaatggaag acgtgagttg ttgggatatg ggcctaccaa 660 getteetega egtegaggag ceaetttega acceeetete ttagagtgtt atceaeceea 720 atcatcacac gtttgcgctc tctatccgcc agattaggct ctccatcatc ctcacggcaa 780 tgctcggcgg tcacgctgcg gactacttct tccagtgctc ccaggactag ccggcgacac 840 teggteegeg gggetteaag agagggaact tegtegeggg tggeegtata efeagegggt 900. ctgtcgttct ctttccgaga tcgcgatgga gatgacgccc gagtaggtgc taaagaggac 960 gggccgctct gagctagcac acgttcgaga gcgtcgacca gggtcccgtc cagatccata 1020 accggttcct ctacaaagcg ctcctccact tcaccggcat tgtacccatc gaagcgtggt 1080 ctcggagagg gcgttgccga ggccatggaa gaagagaagt agccgctaag ctgtgaagta 1140 gacattgagc agcctggtac ttggcgagga gtgcccggag tagacatccc agatgacgac 1200 ateggtgate teacagagee geegecaatt geteggeget taagaegeag eegettgaeg 1260 ctaaaggtcc gcacatctgc aatcagagtt gtggcaacat ctacccactt ctctgatcca 1320 teagtateeg etgetacege gttgettgga gtgggetegg aetgeatgge tegeetgate 1380 tctgactcta ggctcgagta aggtcgcacc ccttgaagaa caaagtcatc atggaagttt 1440 ttcaaccatc cagcgacgtt gagagtcggc ccatcgacat ctttcgtctg ataatggaat 1500 cctgaaccac tgctatgagt agatccaaga gcatcaaggc ttgttatcga cgtgcgagtc 1560

tttttcgggg aagccatggt cgattcaccc gacgaagaca gagagacaaa cccaggcaat 1620 gggagctcaa catctactat tccatcctct tcccggacgg ctagtttgag cgaagtttct 1680 ctagggttgt cagttgtgga agaagatagg tccggcgcat cttcttcgaa tttacgttgg 1740 gegtttggag gttgeggaat agaaatagte gegetagtag egatetggtg agtttetteg 1800 ttggaageet etteaaceat ttgttggage gtegtagggt teegtttegg gacattaagg 1860 accgaggtgg aacgtcgacg gtgctcaagt ggctggccag cagtaccgta atcagtcgac 1920 gacteetgae gagageteea gagaeegeta aagagaetae eecaaegaee teeagtagta 1980 ggaacgctac tattggcact gttcgttgag ctttcgcttc tttgcaggct cttcaacaga 2040 gtctcagacg ccaagctgtc caccecttee eegcaagtet ggtcagatgg tteeegteec 2100 tgagaagcaa aatgagggac gggaactgcg ccaccagggt ttgctgttga tatcgtcgct 2160 gtgctggtgt tcttgttgcg cgcatccttc ggatgcattg ggatcccgat tgttctgact 2220 gagcgagcgt ctgagcctct gcgatatatg ctaaaatcat gctcggcgtc atccgttgat 2280 cgatgagcgg tttcgttaga tgaagcacta acagaacgat tatgatctct atcggcgaga 2340 ttcaagcgct gtgcacgtga acgccgctct atggctcggc gaagaggctc ctgccgcagg 2400 acaggcacgc tgggcggact ttgagagaca gcacgagttg aagcggaggt accgggtcgg 2460 agtggagaag gcagtggttc gaaacgctgt tttggtggga gaaatgccga aagaagaaag 2520 atgagtetee gageagteat ettgteaggg gaaaegatta eegteegata eggaagggea 2580 ggctccgcaa catgttgtgc tttttgctgt agatagtgcc gccgccggta ccagtcgggg 2640 ggtaaggcat tcagacattc cg 2662

<210> 776

<211> 2203

<212> DNA

<213> Aspergillus nidulans

<223> unsure at all n locations

<400> 776

teaaaccact acacctgtga aacccagtet cettteecca etgteaagca ageaggtett 60
teecgeetgt tgtaaccata tgeettetea gaactteegt tttetatggt gggegetgge 120
tgaaccggga ttegaatgta ecatageata ggettgttt tttaetttt tttaaatagg 180

ttgcagtact gtaggtacag tgtgcgattg gcttactaca tggatttccg ggatttaatt tgtggctctc aagaaatact cgtatagcat ttgtaagaca gatatgctta aaagtctggc 360 ttatactata gtctagctaa tattatagct acatgcccat cccagactcg ggcatctgaa taactacctc atctcgccca tcgcgccact gtgcacccaa tttgcgaacc cgccgctcgc 420 480 tagccagaaa caggaggagg tatatatggg tcgcgatctc gccccaggcg tagactttta 540 aagatacgga ctgggcgaca atgggttctg cggatgttgt atcttcccca ctcgcatcac 600 gateceaate eegeteeegt tettegagga tacaceagae acceeateea getegaeeet 660 ctttgccgat gaagtcagac aggaaagtcc agaatctggt gaagaggggc ttgtcccagc atagcacett getactggtt ettgeggeeg tetggttetg gtteteaaae teagattegg 720 ctctcggcac tatagtcagg cggagatacc agtatccgcg ttcgaggatg tcgaggtccc 780 840 gagtttgtag gacagggttg tatgtccggg gggacttgag gcggttgctc aacatctcta 900 gggttggggt gatgtgggtt gtgaaggggg atgaggagat tgggggtggg ggtggtctga tttctagggg aagggaggga aggatgggag aatagccttt tctgcggcca tttggcggag atgatgette tgettetgtt tetgggteeg gttetgggee tggttetage ceagegaett 1020 gctccgccga aggtggctgg atgccgtttt catcaacctg tttttcgtgt ccttcttccg 1080 gggtagcgag ggtgttggtg gtgctggttg ggctggcatg ttccacattg atattacgac 1140 cccctgccgg aatatcgcgc agtccctgaa cgttttcatg cggggaattc tcgactggtg 1200 gcggtgagtc cactcgaggg cgttttgaag gaatacaaga agagaggctg gtattttctg 1260 cgacaggaag cagagtcaga ctctcacact gagtgcctga ttgttgaagt tccggctgcg 1320 agtccgggat gacgctgacg ggcgtctcca gcgaggttcg atcaccctgg gacccattca 1380 gttgggcagc ttgatctaga agcgacgggt cgttgattgt tcttggatct gcttcctctg 1440 gaattggcga tgtgagggtg atagtctcac gagagtggct ctggaaattc agaatagcct 1500 cgacctgggc gcggtagcgg gcatcgtcga cagcgctact, tggcgccgag atgtggacga 1560 ggatttctga tctgtccatg cgcttgcatt ttagtggctg gtcatattat ataccttgta 1620 taagtgtcga atcaagcgtt gatgaggaaa agaacgactg gggtatggga cctcgacaat 1680 gaccaatact gaaggactcg ggcggggtgt gattttgtgc cttatcgcct gaggccaaaa 1740 gegetggeaa eagtteaaeg ateeategag tteateatee egacaaaege atgaatttae 1800

aaccaactca ttcaacgett accgggccca tatcaatagt tcgcctcact accattggca 1860 gggtctgaat cgtcacatca tgattatctc gcgtgcaggg ctcggctcct cccggcgcaa 1920 ttgggaaacg cgatgatagt ccacgetttg gctcaactat cataacgaaa atcggttcat 1980 aatctcgcag tgatttggaa ttgttttcct gccggttgcg gcgatcttcc gctaatgcgt 2040 cggcccttga tctactctca agcctcccat gtcacgaact cgccaccgca tggcttgatt 2100 ggtgccctgg ctacngaacc aggaacgtga tgccgaaata taccettttc acgatactcg 2160 gacccatcgc atcaatagtc agaacgacag acctgcaagt tac 2203

<210> 777 <211> 2232 <212> DNA

<213> Aspergillus nidulans

<400> 777

accgaageta tacatecete cacettegge aaaggeagga eeeggatgge ttttttttte tggcatattc aatacaacaa atccaatgga gtaccgacta acatctatat ctagtctccc 120 gaatacttgg cactcaaagc acgccttctc gccgccgccg aagcagatgc ttacactcgg 180 atgeteteae cacegacege attatacaea gaceegttat ttgacaegae gaaeteaaga 240 ttagccgcct tacatgacgc ccataaggac ccctcagccg aagacccgac ttacagagac 300 ccgctcacac cgtccctcgt cctaaatatc ttcctctctg ttataatcac agggttcagc 360 gtctactggg ctctgacatc cttcgcgatg ccggagatat tagtttcaag gatttcgtcg 420 acgtggtete eggggeaggg cagtggeggt tetagageat eggaaceagt tegtgtttta 480 ctttcactct ttgcggcgct gggggtcggt gtcgcggagg tattgattta tgcgatttat 540 . 600 ctggggaaga tcgaggtggc gagagataaa gaggggcggc gaaaagagaa gaaggtggtt atagggagtg aggaggtggg gggcaggggt agagatcaac agagtactga aaagacagaa 660 atcaaactca atggtgagga caaggaagtc atctggggga gaggaccgaa tggaggtctg 720 cggaggcgag tacgtgagaa atgggaagaa acgacaagag acgaagacca ggaatgattc 780 gggatttggc gggtgatagt aagtacaatt ccagcccatt gactggacat aacaagtcaa ctttctagtc cgttctgtcc ctggacgaac agaacacatt caagtgtata cgatacctaa 900 gcaaatgaag aatatgtcct gtcgaacagg aatgttaaaa cattacccaa catagaacga 960

tgggatggaa tgagtcgaaa cccgaatatg atggtattgt ctctattgaa caaaaagaaa 1020 gctaaacaaa actctacact cgcttgtgta ttggatgctc gtgatgataa agctgcggtc 1080 attagtatgt atagaaggta tgcatatccg gatgggtatc atggttcttc ttcctgtcgt 1140 tcgtcgtcaa ttatatatgg gttggatcga cttgctgccg caatggcacg atacagcgag 1200 acgaggcgca tatggagtgt gcattcgcaa cgagacgcgt gcgggtgcgg tgagggccag 1260 tcatgaagag aagtgtagga tgcataaggt gggtatgtga aaggtatata tgcaaacggg 1320 gaaggtgcaa aagcaaggga atgaaggtga tcaaaccctt ttctccagga gcagtgaccc 1380 ggaaggegee ttgacagtga atcegteate cetgttgaag atetteteae egegeageea 1440 cgtttcccgg accatcccgc gcatcgtccg tccctggtac ggcgagcatt tgttacggaa 1500 gagcatggta ctcggctcaa cttcccactc cgctgtgtcg tcaaaqacac aaaaqtccqc 1560 gtcgtatccg gggacaaggt cgcccttgga tttatgcagc ccaacctggg ccgcggtgtt 1620 ggcgcagcaa agatggacga tatcctggag agcttgtttg gttgttgtgt cgtctggtga 1680 ggaagtcagg cccttgcggc gggagagttc ggtccagagg atgggcaggc ccaggccgac 1740 ggcatgcttt gacgagccat ggctgcagtt gcccgggata tgggagggga gaagcttgag 1860 gtctggtgtg caaggggaat ggtcggagcc aatggtcttg atgacgccat cctcggcgtg 1920 gcggtcaagt tcggcccaga gagcgtcttg gttggacttg gaacggatgg gcgggcagca 1980 tttgtgccgg gtgtcgccat cacgaatctc ctcggctgca agggagaggt aatggtagca 2040 ggttccggct gtaatgggaa caccctcggc acgggccttg cgcaggagtg ggatggcctc 2100 catggcagat agatgtcgga tgtgcaaggg gagcttagga gataggtggg acaacgtccc 2160 catctcctgt gctgcacacg cctcgtgatc gtagggacqq aaqqccagqc acccttccaq 2220 aactctgccc gg 2232

<210> 778

<211> 592 <212>

DNA

<213> Aspergillus nidulans

<400> 778

aaatatttag agttaatagt atacttactt ccgctaatat tatttgataa cagcaagacc 60

ttccagggtc ttgggcttga agtttggggg gagccatcca aggctgcgaa aatgttccag tctagctcga gtctcctcgc agagaatggg attagtccaa aattggtgtc accgggttga 180 gcagggggaa ccagaggagg cgtcattgag gcagtcagaa atagtgtaga gaagtaagct 240 ggagtcgaga aaagactggc ctttagaatc aaaccaagat tgttaaggcg ggtgagggg 300 gagggtgaac agaggaacaa agaagcaggg aaaaggtagc attttataga gtacttgacc 360 aggctggtca gatctagggc agctagattt ggccacgaag gagcccattt tcagggcgat ttggtcgtga tttgagatgg actgaagctc gctgcggtcg agcactcatt caagttcaat 480 cagaggtggg aactagaata cttggcgggt gcagaatagt ggtgtgagca cacatgacaa 540 tgttaaaacg gtcgctcgct gttgagagtt acgggtggaa tgcggccgtt ta 592

<210> 779 <211> 1538 <212> DNA

<213> Aspergillus nidulans

<400> 779

tectgtacga tgaagaccgt gtcagactcg ccacettcat cetggecagt gcattcgacg 60 ccgcggccaa aggtctgcag ctctccgtcg tagatctcgc ctgcagcgat ctcgtatggc 120 tcagagaaag ttacactgcc ggtggaagag gggatcggga aggtgaatct ctttgatagc 180 ttggggttag cggccgcgag gcacgggcct gcgaggaggg gcagggtgag cgtgagcgtg ggaagcagtt tggaaaggac gggcatggtg gacaaaaagt gaaatagaga cgtttgtggt 300 agatccgagt gaagtgctcg agacgctctg atctgggaac tgagaactga gctggttgcg 360 aggcggaaag aaggccttta tacttctctc atggccatct atctacagga tgaagtatat cgtatggacc ccaacatggc gaccttggcg tttcaactct gcqqcgatca ccattacatq 480 tcaaacaata tcccaccact cgaatggata ccgacctcgt cgccatgggc aaacagaact 540 ccgtgccaac agagttacca gcagcggaac cctgccgatc agttcctgat cccgaagccc 600 taaatatggc ggctccttgg ccactatatt atgtcttcag gctgtgtcga tcagtcgggc 660 cttgtctact tgattcgcgg actttccgtt cttcttcgag tccactcgtt tgaagcgatc 720 tegteccatg ttagtgeact gecaceceat teaagecete caagactttt aggegttgea 780 gtcttattgt cccatatcta catgatgtaa gcccacccag gtggctggtg cgattcgcaa 840

atgcagcaag cgtacgcacc gcgctgggag ttttttatga aacttgagtt tctggtatat 900

ttccgacggg gtgaggtctc agggttgtat gcttgatacc cagacctcct ggtatatccc 960

cagatatgct gtccatgcga acaaaactat ctagtaggtg aaagcggact gcgactcgat 1020

accgtcaaaa gccgggcgta agtacattaa tcatcatgca gctctataga catagcagcg 1080

taataaccct taactattcc ggcatcgatg ctaagtaacg ctaccactac tactgcttat 1140

cactgtccgg ctctctccca gccgcactcc ccagcccatg catcagctga cacaagccct 1200

gtaccagcgg cgacacggcc gtcatacggc gtctgggcac tcgcatcacc tcttaggagt 1260

ctctgagcga cgtccatcac tttccccgga tcagaaacaa gagccggccc gtcacttaga 1320

ctgaatcccc ggagagcagg gcacccgcgc gccagagaga tgaatctatg gacgtcggcc 1380

gtttcttcgc cgtctaggaa gactaacagc tcagagccgg acgcgaggtc gagctgccga 1440

ggcccaattt cggactcagc acactagata cagtattagt gctggcggta gaggtaatgg 1500

ttccggcaga ggttgcagag gtggtagaga tctttgag

<210> 780

<211> 1032

<212> DNA

<213> Aspergillus nidulans

<400> 780

tataaaacct cggcctgtgt actcctgatc ataggactta ctcacggtta ttaccgtctt 60

tttcgtcgcc agaatcaaga ctgccggcca tgaaaacagc ctttgctggc cagatccaac 120

ctctctctcc aacctcgccc acaacggcct caccggctcg tcgtccatcc tttcgaaggg 180

gaagatatac ttcacaaact ctctgagctg actgatgttc cagctcatct cccacatctt 240

tctgtcctcc tgctcaatca cgatttcccc ttgcttaatc tcgctcggcg gcgcatctag 300

cgggcaccca caggctcttt cggtaaagaa tgccaatcca gcccaggaag tattccattt 360

ataccgcgtc acatttgccc attctgtctc cgagaatggg atataatcca gcccgcaagc 420

gatgcgctcc gcaacacact tccactgcgc cagatgctcg tggccatggc cttggatcac 480

acctgcgtag tgatggtcga taatctcgtc gaggagtggc tgacaggtga gagcgtactc 540

tggctctgca aagtgtgcg ggccgtagaa ccagattgcg agcgttccgc cggttttaag 600

gagggtgtgg aagctctgga gggccgggag ggtgtcgagg aggggaaagg tcagagcgca 660

ggcgaccagg tcggcagaac ctgctttgcc cgggtctttt aacaagaggt cttctgctct 720 ggaggacaca taggagaagc tcgactgggg aataccgctt cgcgaaagga accgcttcgc 780 atactcgagg tgactggcgt tgttgtcgct cacaacgaca tgcgagaacc ttgcagccag 840 ctttgcagca acatggcctg gtccagcac aacatcgtga gctactgaca gactcttgaa 900 agagcctctg tttcgcgagt gcgttgcgtg gtggttgtaa atgaggtcgt agaaggaatc 960 tgtgtatttg ggccgcgtgg agagatagcg ggtccagtaa ttgctgtggt cttgctgagt 1020 gagtcccaga tg

<210> 781 <211> 4662 <212> DNA

<213> Aspergillus nidulans

<400> 781

gaaactgcta tacaaaggcg aaagcgagct cgtacgcata gatggatatt tcatgataat 60 ggtctgtctg tacaagaggg gacagagctc gaggaagctc ataatgcgtc ttttcaggca atacctggtc catgcgggcc accagcagaa ggtgcacaaa caccaaaggc acgggcatta cctacatgta.gtacctgcca tagaattggg catagaagaa atgcttgtcc aaataaataa taattaatat aaaggcgttg tggttgatta aaaggtcaaa atatgggaaa tctgtatgca 300 ggtgcgcagc tcgcttacat gcgcagctcg cttaccaacc acgttatggc ttgttctgag 360 aggagettea aagggtatat getagatett ttgattatat egtttetttg ttttcaaggg 420 tctcgcgtaa tctgaagcac tgaggattgc tatttataat aatcgaaatc cgccatagaa 480 aatgcacaac gctttactag cccctctcat gcaatagtgc atcaccggag caggttcatc 540 attettaace atggeageta getgattgag gteagatgtt egtggtaagt aaagtateae 600 atattgcgtg aaaagagaaa actccgtgta cagtttattc aatgagtatg gttccatcgt 660 gctaagatcg aatacagatt ctgatcgata tccgggacct atagtgaacc ggcqagatta 720 gcattcagag tgaggattgc tagcaggaga acgcaggaac agacatacct ccccaaggcg 780 gactagcaaa taggacgcta tagggcgcca aatcctttaa ttgtgatttg agtatatcga 840 aacagtetee ttgaaaccag gtaattttgt etgegaceee atagacetet geattatgtt 900 gegegeaceg cagtgtegeg gggtetttet egatagegta aactegttte cagtgeeegg 960

accgagcaaa ggcaatagta tttcctcctg cgcccgcaaa aacgtcgacc agaatcttcc 1020 gctctggggg agaagcgtgt gctacctgct ctgcgatctt tctgtagcat ggttcgcatt 1080 agcgcttctg cgctttctgg tgtagaattc ggatgactcg ggtaaaaatc acatacgtag 1140 ccactggctc tggagtaaca ccaaaccagg catcgtcagt caaccaaatg ccgtcgtccc 1200 atttggaaaa gagatcatag cgttgggacc agtagctgga gagcggcgtt agctgattcc 1260 tgccgaagcc agtggggcgg tattcgtact tctgaatgtc ccaaggcacc tggccacggt 1320 teteataatg atggaeetea ggaggaggtt ettegteace ggaeatggtg getetagegt 1380 gaccaagaca tgggtgaagt aagagtgaaa gattagaaag ctccgtctct tctggtccga 1440 gcatccccac gtttgaggac agcttcatac ggaagtggtc acccgtcata cttattgcgg 1560 ctgtttgaca actaaacaga tttcacaatg ttcggggctc tgaaccgatt tattggtcgg 1620 ctagactctg ataccggttc ccaccagtcg cggtcggata gcgcctttgg attccaggtc 1680 ctacgcaata aggaccccga gctaccactg gagccttggt ttgatttcat tgttggaata 1740 aatgggcgtt tgatcgtgcg ttatctccca tccacatgat gcttatgaag agtgatatgc 1800 taaaaagctg caggatgatc cagatccaga tctcttcgcg actgaagtgc gcaattgtgc 1860 aggatcccga gttacctttg cagtatggag cgcaaaagta tatagtctgc tactgtctcc 1920 ctagagcgta tcgctaacca gtcactgtgc tgtctccgtc tcgcagggcc aaagaacgca 1980 cactatetea attgeegtte ecceateaaa tecaacaete ggeetageee tgeaattage 2040 teceetatee tetacacaga acatetggea tgteetgaat atecegtege eeetgageee 2100 tgcatataga gccggtcttc tccctcactc cgattacatt atcggcacac ctagcggcac 2160 attaaqaqqc qaatcqqcat taqqaqaatt aqtcqaaqac cacctqaacc qtactctaqt 2220 gctgtgggtc tataacagcg aattcgacgt ggtgcgaact gttgatctgg tgcctacacg 2280 aggctggggt ggcgaaggtg ccctgggggc tgagttgggt tttggagcgt tacatcgact 2340 gcctgtgggg ttgggcgagg aagtcgaggg gccaggggag gtggtgtttg aaacgcgcgc 2400 tgatggagtg tcgacgccta ttcctgagcc aacggcttcg tctatgccta cgcaagctgg 2460 aatteetggg caategeege agtteettgt teeggegaat ataacetege eteegeettt 2520 ggcacccgcg gcttcggctc cccaagtgtc gcaccatggg agaaaggcac gagggaatgc 2580

cagagettea eeteaaagag egtttgatga ttattttgea gagggegaae agaaaageaa 2640 ggaacaggat catgtaccgt cacggagagg aacaccgctc ccgccgccgc ccaaggctgg 2700 gcaattgcag gagcaaaagg aatccggata gaagagattt gtttacgact tgcagcatgt 2760 gttctcggcg ttttatgata aatccataat acaaacgaaa ctgaactgtc tagaacctgt 2820 tegteggaaa eetettacag atacatatge getataggae acaggeeeac egetateaga 2880 acgtagttga gcgaataaaa aatacgagag gtttggagca gagtcagttt aatgtccctt 2940 gctcacaacc tcttccagct tcttccgagc atccccaatc ttctcctcca tctgcgcacg 3000 tgccatggcg ctgtgagcaa caccagcggt ccatatatgc tccgcccgct ctcggaagta 3060 caggtggtta tetgcaatga cagggaegeg ettetegtae teecagatea agteggagae 3120 attccgcatg gtcacgggaa ggagagacca agctgcaatg gtaccaaacg ccaatggggt 3180 agtgccgcga agaaagcggc cgcggttacg ggcaacgatg gagccggcca tagcagcaac 3240 cacaacgtag ataccgccgg gtaggatett ttecccagae teeggggagg gtgecagega 3300 ggcgatggtg ttggtgaagg cgttctcgat gtggagggcg cgggagagaa tgtcgttgaa 3360 gcagateteg geageaeggg aetgetggta gaggaagaga egaeeetgge ggatttggge 3420 agttaggagg teggttggeg taggggaega gggegatttt gtgetggtgt tggegagage 3480 tgtagtgact gtcgtaggtt cgggagtaga cgcgggaatg ggttcggtag tggctggggc 3540 aggagggatt ggggattcgg cgggataatc atcgtagata ggttttctct gctgtagtta 3600 gagggggatc agattgagcg tatctttagc ccttgagcac tgggccagag caagcaacgg 3660 acatacetee teggeatgag ettgeegggg atagaaagee aeggeteegg eeageagaga 3720 cacagagagt cgctgataaa gcaattggtt agcaagaaca acaacaagaa caataatgag 3780 tgggaaatac ctggtacatg gccatgttgc gggcaattga tgggggtcta ggaggaggtg 3840 aggatgagat gatggaatga agtccagaga aaagtgccaa gtttttttcg gccgcagtcg 3900 gttgttcgcc cttgtccatc cttgatactt cgtcaccctc catcttgggg ccatttcttt 3960 tetetette catetetaat gtaetatatt agatatetae eagaetaata tgetgeggee 4020 gtggatetgt egeaettgte gaetacaaaa acacetgeae egtegeteea teaceaceae 4080 gtccgccctc cgaacagcgc ccgcgtctgc ttctgcgcca gttatccctg cccaatcctc 4140 gccgtccaag agctccgacg acgataccct tcgccgagtc ttcgactcgc agtccttttg 4200

gegegattte teegagtegt cateettete eeeegacegg aageegaceg gtettgttea 4260 gaateagtae etcacaagte etgaceggtt eegggeettt geeeaggtat egetacagaa 4320 atgteaggeg ategtatete gagteetete egegtegaceg gteggatgaat ateggggeet 4380 ggtacgteag ttggacegee tgagegacet getgtgtege gteattgate tgteegactt 4440 tateegtgee ttteaceegg ateegeeggt teaagaggeg geaggeeagg eatatgeett 4500 aatgttegag tacatgaaeg tgeteaacae eacaactggt etteatgate agetacegge 4560 egegetgaat eageeggagg teaeggegea ttggtettee gaggagacea ttgtegeegg 4620 tateetgete eaggatttta eeaattegge gateeatatg ee 4662

<210> 782 <211> 3254 <212> DNA

<213> Aspergillus nidulans

<400> 782

cggacgatta ctctcactca caaccaagga aacttgggct gtggactgca acaaaatttg tctcgttctt tagaaagaga tactattgcc caagctggga agcgtaaaag ctccagcgta cataaataat caaaataata caattattca agtatcaaat ctcgagattc attcgctttc 180 tatcagtata tacagccgta cgtatattgc agccctagta gcgtagccac ggctctatcc 240 gcaaaccgat ttcttattcc ctggatccca actcttctga gacattcagt ggggttgggc 300 atctgagatc agtgaggtga gacggatcgg ggacagaatt accaaatcgt caacggagcc 360 agatggagcc gtcttgggcc ttaaggctga gatctagttg gtcctaatgc agactcatga 420 ctctatccca tcacatgcat acggaatact taggccagaa tggttgtcct agtccactgt 480 gccagcggta taggtcgatc tcttaatctc cagtcagtag cgcgcccata gtcctcaaat 540 gcgacttggg tgcgtacact tactcaacag aaagccctta attttgtcaa ccagcccatg aaaatgtggg ctgaagatgc cattcatctc gcttaaacgg cggcatttgg atatatgggg 660 ctgggccgct ggactcagga tcaggactaa tatcagaagt gtttcaattg cgcgggatct 720 ctactttatg agactttcta aataaagtcc cgacagggcg tattatctac atacttgcta tacatgctga acttggagca atgagagaag tgggggcggg acagacgctc tatcctaagg 840 tecegaeetg aegggaatge atettgeeea atgeggtaee etettettga gegeteegeg 900

gcgggccttt tcggagcctg cgggagaacg gagaggggcc agcgttaggc ataggatttt 960 gcagattcga atacgagggt tggaggggtg atatttggcc ctgggggttt gccccaaccg 1020 tgccctgccc gtacggagcc tcgtacttca tagctggcag gcccggatta gcggcacagc 1080 tactetgeag gagaegteaa getagaetgt caagggaeat ttataetgaa caagggaeat 1140 aagtacataa ctagttetta tetggegeet acataggatt egateeegee gteeateaat 1200 gaagctgtca atcaaatgac aacgggaatt gggcaactaa gggcatctcg gagtaacggc 1260 ggacattcaa agcettaett etgaetette gagattecag accaaageeg gatgeggaeg 1320 gtggagttat atcagccaat catgtggcgt gtattgagcg ccttgtttat ggattgcccg 1380 gtggagatca cggtccatgg ataattcctt ctggaggcga aatccaccca aatttgaagt 1440 ctcgacgtca acctgacctt ggaagactgc cccgttagtt tcctgggctc agggtcggtt 1500 gggagttcca cgcatccagg gtcccggatt cggtgctgtt gatggggatt gtcgtactac 1560 ctgcctgaac aatccgttgg gttgagatca ggtatatcct ctaagcactc aattgggatt 1620 gatggcgacc ggcaaaggcc aggcctacct agttttatgc tgagaccagg gcttagaagg 1680 caagttcagt gccagctagt tcaaacgagt cggtatgtct ggccgccggc ggctgcctag 1740 accttttaga ccaacgatca gcggcgacaa tgctgtttaa aagaaaatat tattattgcc 1800 gatgcgagaa caggctggat ggatgggagg ctgccgatat gcaacgaggt tggaccggcc 1860 agategagat gggccgccct gctggtggtt tgccgtggcg ctgacgateg cccgtttctg 1920 ggcctttctc actcgcagtt gtcatgttta cttttcccac gtctttgctt ttgcccaagc 1980 ccattcattc cctttattga cccaagcctc tcgatgacgc cggcgacttc ggattggggt 2040 aaattctccg tttgtaagcc tggagctgga tttcacgggt agctgcaaga tggacctgtc 2100 gcgtaggaca aagagtcaga aagacgaggt acggcaagcg ctggctgcgt caatagcgga 2160 ctcaagaaat attgttggag gacctcatat caggaatgct ttgtatgggg gccacaagcc 2220 agggtatagg atgaggggcg cttgaaggat gctggatgat gcccgtggtt gtatggcaaa 2280 agcaaatact gatagcaaag ttagatgggc cgcttccctg gttatgctga atggtagctt 2340 tegggtggge tgacegaace cagtgacetg gaettegatt agettgegta egaagtagae 2400 gcggtctcct ggaaagtagc gacgggtatg gagtcaacga gaagtcaacg agatcctgag 2460 ccatggagta cactcataga ctcataccat gagacttccc aagtaatatt agattatgag 2520

acggtgccaa gtggagaggc aacgagagca ctggcactgc acagagtgag agcgagcctg 2580 gaggtggggt caggtccgtg taattggatc agccactagt ctgggcctag accgcgcgtc 2640 tgcccggccg cgctctccct gtctgctatt ttagtgcaga ttcttcgcag cgcgctgggc 2700 aaaggccgca gtgagagtet tgaggacaag atcaaagaac aattcaccag tatcgagcag 2760 agtaagcatc cggtagaaga ttgttgtgca gcagactgtc gcggtgaacg gtcgctgggc 2820 cttgggttgt gtcatcgact tccgcccgtc gggccagaac gaggtcccgg caagcgactt 2880 tgtcatggcc ttccatgctg gttttccatt ctagaccctt caaaactcgt ttggccctaa 2940 agtccaaaat ttttttttct ttcaaatttc ctttttttca acggtttaat ttgattaagg 3000 gcactttaac ctttttgccc gttttatacg gaatttcttc catgccctta cctttcctta 3060 atateettte tttatataaa attetaagee ettaaaaeea ggeggttttt taggetatae 3120 cctgttttaa cgggcaaatg cccgaaccga aatttctttt ccctttcccc atggtcccca 3180 atacctgggg tttcttgttt tccgctctgg ggccattctg ggcctttggc ccccaaacaa 3240 ccccttata tccc 3254 783 <210> 2301 <211> <212> DNA <213> Aspergillus nidulans <400> 783 aaaggattga ttctatcaaa gcccaagagc gatcaaagcc acgagcgaca agtctggcga 60 agagacttcg ggtccacgag gaagcggccc catcaagcgc gaataaacgc ttgaagcagg 120 aaagtacatc accagtggcg cagcccgtgc attcaagcca tatggacacg gaaactccta 180 ctegtgegea ggaeteggtt gagaaeggeg tgetegatea gtatecaege aaaageaaca 240 cacaacacgc agatggactt cccgcggaga aggcattgct ccccgatcag agctcatatg 300 catcgccacc agcgttccag gcggatgcag tggctacaaa ggagttgcca gcaactgtgt 360 cgaagccggc tgccgtgctg gtgtcaccac caacgtcgct agctgatgag atggatatcc 420

atgatcaagt ggacgccggg ggggagcatg tatcggtaat ctacacgcct tcgtcaggct 480

cccgccagtc ttcacgccag ccccgtcaag ttgagaggta tatgccagag gttcactttg 540

ccaagacage caagtetaca accaeaace etcaaactae gegeegeteg tettttggtt 600

ccagtggccg gaagactaca ccgggattgt cctccggttc aaagaaatct ggatctcggc cctcctcatc tcatggaaag aagagtcttt ccccttccgt ggagaagaaa gccgaacgcc 720 atgccatctc ttcagcgcca tttggtcagc acggcagggg ctccaaatcg gagcatggaa 780 caagegaegt tgacceegat getgaaaget taegeetgat eegegaaata caagageagg 840 agtttggttt acggcggcga gcaggcagag cataatgctc catcctccac ccccaacgac 900 cgtgtcttgt gcatagggct acccacccga atttcctttc ttttagacat gctagactag 960 atctgggatc atggagttaa tatgagctgg agtctaatgg atacggggtt ggatcgtttc 1080 ttgtgctctc aattittttt ccctccaata taccttcctt ctgtgtcggt ctccttctgc 1140 gtctgttact actgctatta ctacttatcc ggcgttacag gctggagcca taacctgctc 1200 teetgggtgt ttatetttet etaegteegt ceatatetge tattgeettt etettgeatg 1260 atatetette cacatgeetg ttgagttgag taettegage cattttgegt ttateatggg 1320 gcgtttcaaa tgcgtttgta caaactggca attttgaatt tgaggatgat tttctcgctg 1380 tcccttttca tctttttcct tattcggttc ccaacccagg caagtcagat tgatatcagt 1440 attgtttttt aaactatgga caataagata atttctttgt ctctaatctc aactatctta 1500 gttctgctct gtatctgtac cagacaggtt ctattactcc tttctggctt gcccgggggt 1560 ttgttcattc aaagctgtca gtattattat acttcagcga agaatccaac aatctataat 1620 tttcattgac catctagcta acagcagaac tctcaacaaa aaagggaaaa gaaagggggg 1680 gaaaaaataa gccttaaaac tcctgcacct caagctcctt agaaaatgct gcaagatcat 1740 aaagatgacc ctgtacgtct ctgtagcatt tgggtccacg tgccttctaa cattcaaaga 1800 aggggtattt cagtcatcaa acaaaaagaa aaaagaagta acaataacat ttcgggggta 1860 taccgtgtat gagtaaggat gccaacagta agggatatcg aatgcaagaa atgagatata 1920 atgatagaag cgtcaaaggt aatgaggggg agcggaaggg gaagggccac ggtcgtcaat 1980 gtcatcacac atatccaatc ggtattcaat aaacgtgtcg ctgttcatga gacgttatca 2040 gaagggttcc ctggtccaga cgtggaccac cgtttagcgc gctttttctc tccgatgaag 2100 tetttgatga tacagggete tteateegge gtetgacata etttgeggeg gttaagatge 2160 ttgaaccgcg ggccaagcgg accgtttaca tagtgatact ggcctgcaaa tcgatactgt 2220

cgatgatcac ccagaggata gaactttgtc gccccatgac cgttgaagta aaaccactct 2280 gtcggtgcat ttggcttaga g 2301 ' <210> 784 <211> 3147 <212> DNA <213> Aspergillus nidulans <400> 784 60 caatgctaac atgacttaga tggatacaat caacagactt ctacggaaac aggcgccaaa gcgacgtggt cgaatccccg ctgctgaagc ggccgagaac gctgccgcgg accaggaagc 120 180 agcggcggaa acggatttcg tggacccgac catggtgcga tggattagtg gtcgtgaagg tagtcgtgtc gctgtgccgg aggagtggat tgggaccccc ccagggcgta tctttggagg 240 300 aacgccaagg aaactagttg aggaaatatg agtgcacgat tgacggacgg cgcctaaacc ataggcgcac tcaggattcg gcgtatcggt tttggcatgc gtagcaggaa aggttatctg 360 ctcatttgca cttggaagag gagttcagct gggaacgggt catcacgata ctatccaggg 420 cttgcatgtc ccaaattata taatacattg tctatgtgca tgaaatagtc tacattggct 480 540 egeceggitt tacegitgia egetatgegi gggigaetee gigegaagag eagettiagi ctgcccacac tgttcgcaac ttacataaca cgacgaagcg tcgcaagcat gccaacgggc 600

agtecattac cacteaaaga tttecaagee tegtegaace atattaaegg taggataatg 780
actecttatt ttecagtatt actttetgtt ggegtaggeg tagatgttaa ggtagagaeg 840
gtetgttgeg actgatgete tggttgttge getgegggga aactetgget tetateaete 900
gtetttatea gtacgeegaa ttegettttg tgetgeeaace ataceeagae ggggaeeteg 960
etataatace ettattgett tggagtteee teaatgeggg etggaaggtg tagtaceetg 1020
cacggagata gatgteagtt eagaacattg agegettegg ttegatgatt ttaaggaate 1080
gtacetgtte egaegeeat tacgaeggee agaacgaegg ggataaaatt eegaeteatg 1140
atgaagtagt tgegttgetg aagaagtgaa ggaagattgt etagetggt atetggetaa 1200
ggtageetaa ggegggtggg aactggetgg aaagttegee aaatgagege caatttaaeg 1260

agacttaggg tgtctaccca agttatcagg agacctgaat gcctagaagc atttatcaca

gtgccggcgc ttgagccagt acccgaaggg atttacctga cccggctcta gaacccagat

660

720

teegtegegt ettecacata attitiggite egaegegiee agacaaacea accatecate 1320 ccatcaacat ctttcaccta caacaaagac gtcaggctgc catttaccgt atttggccta 1380 cgtaatttcc cgagtgtcgg gttctaatca agaggtggtt ttcgaagaat ggaactctag 1440 agacatgggc tagcgcgtcc gaggatgcaa atggagtcat ggcgggaacg agggtttgtg 1500 ccagattcgg acgaggaaga tgggctcgat agccaggaga tggggttaat gctggatgca 1560 actactaaga gtgccaataa tgtctctgtc gttgttagcg ctctgcggag tgaggaggtc 1620 gctgaactgg ctggagacga tcatcataat gggagcgatg gagtgaacag ccaacaacgg 1680 gacaatgcag atacttgtgg tggtaacact ggtgctggga aggagggtca cgacggtgct 1740 gatattgtcg aggagacagt tgcgcctgtc gacgaggata tggatttgcc tttgctttta 1800 ccggacagac gattgcggac gccagacgac gataacggag aagccgaacc ggatttggga 1860 ataagtgcgg cagaagaggc taggtctaaa gaaaggaaga agtctgttag ctctcagtca 1920 tctaatggct catccacagt tggcggaagt ggctcgtcga cgccgcgacc taagcaacag 1980 catgattttt gggatatccc gagctcttct cccgatctgt tgcaaaggga ctatcatccc 2040 tggcgtaaac agacctcgca tgcgatcgca gttacgccta ctcccaaagc aaaggtgcct 2100 agccagecce attegeaaaa egagaaegeg cagagggege tggaaagete teetttgtee 2160 tcaccattat cgtcccctcg ctcctccatc ttaggcgaga tggaagaaca gcagcaacag 2220 cgtcgtgaag cgttggacca gacttttgaa gatctgctac cccctctcga tatacctgaa 2280 gatatattac gacagttgga tcagccggaa agaaggtcgc tccgacaacg caatcccatt 2340 caattacacc cttatcttct tgaagatgca aaatacaaga gccttatgaa agccaggggc 2400 ctcaaacctg tacgctttcc tcaacagatc ttgcaaccag cacgcgctgc agacgatgag 2460 agtcaggaaa aagactttgg cgatgatgca ggctcaactt cggactcgca aacgacggga 2520 cttcagtaca tcctgtcgtc tcctctagat tctcgaccgc tgtcggagcc acgacccata 2580 gaagacacag ttaagcgcgg cgataggcgg tttgatcgac aaccgaaata ctctgcgcgc 2640 agcaccgggc agcgctcgcc gaaaagacgc agggtggtag gacctggaga tgagcgccaa 2700 cgccagagat atctttcagc gcctcggcca gctccgccgc aggtagtggt tgataacgta 2760 teatectegg agentgatge treetegate trigacateg teageneett grigereggae 2820 agtgtctccc cttcactcat gcagaaggat acaggggctc aatttccgcg tagattctcg 2880

cctcccgtcg ctacgcctcg gacaggaaca agggaaagtg ctcatgacaa ttttgaaccc 2940 gttttactag atgatgatga aaacggactt gaccaacaat cagatatcgc agggactatt 3000 aggtcagtaa ccccaagcag cagttcgggt tctgatttga atgatgagga tgaggacgag 3060 gatgcacagg aggcgatttt ccgaagattt cagaagaaga tcctagtatt ctatagtgtc 3120 3147 acctaaatcg tatgtgtgtg atacata

<210> 785 <211> 6129 <212> DNA <213>

Aspergillus nidulans

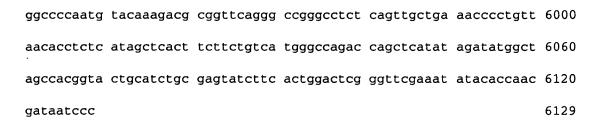
<400> 785

tgtcgtaggc tgagacttgg aaggaaatga ctttgcttcg tcgcgctcag gagaatcctt ctgttgacga ggtgtcacag cagtgacagg gattctaccc aagctgacgt tgtggtggtg gaactgctca gcatgagttt tcggaggagt aatcgcgggg ttaaagctgt cacccttgac 180 ggtaggtaga tcattggttg aataagaaga ttgcaagggg gcaggccggc tcattgcagt 240 gggagtgctt gactcatggt ttccctcggt agagtacagc gcattcgact ccagagaatg 300 360 tetegetgea tgtetggeaa cattgggega ggegetgtgg gattegtegg etgageegee gatatggcca aggcgaaaca tgctgagaga gttctggggc atgctctgat gagaagagcg 420 gtgacggctg tgggaattcc aagattcggg attgggagtt ctagagttgg ccaggtccaa 480 agcgtccgag tttgctgaga gctaatatct cattagcgat tgaggtccgg acagtgcatg 540 gatggcagga tgatgactta cgaagctcga accgtctcta cgagatagag ttgggaattt 600 atcgtccggt tcggtcaact taagatagct tttgatgtct ggagttggaa tcctgtcttc 660 gtccctcatg aatgaccgat cgtcgtcgtt gtggaggagg tatttggctg tgttgaaagt ctccgaagca gacgaactgt tgttgtagcc tgaaagattc ggtcgaacct gaaagccgaa 780 gccagtggag ggcatggaat agcggtggat gctagtaagg acaaaagtca gtaacacagg 840 ccctgaatac tagcaggagg aatccatgtg gtgtagtaga aataaagtga atgacatctg gttctttgag aatattgcgg accaggtgag tcatagagag acgtcattgc aaggaaattc 960 caacagaaga caacaacaaa aaggcactta cgacggcccg gggcgaaagg gagatttagg 1020 gtcgctctca aaatcttcct tttccgagtt tctacgagac ccaggaacag agtggacggc 1080

gaageggtte gtgggegtet gaactgaate gttatteage tgaetgggag gaettgtgae 1140 cgaagaagcg aaaacgttga agaagcctgg ggacgaagta acactagacg tggagaagcg 1200 agttgggcga gaaaaagctc ctggaaagcc gttctcacga tactccgggg gagtagttgg 1260 ttcgctgacc gggccagata tgcctgcttt cgcaaggtct ttggctagtt gattcatttc 1320 caactgttcc cgttcgtgct gaagatcaag gagcttcata tcttcctcga accttcgctt 1380 ctgctctcgc atgtactcga tgtgttgtct cttcttctca aactgtagaa caatgagcgg 1440 cagttcataa acaggttata tggtatcgat caaggaatga taagcaatga taattaggca 1500 gaagaagatg attgcagaac tgagggttga ggtggaacat gaggagggca taaacggcaa 1560 caggaagcct caatagaatg aagaggacaa tgggagtagt gagagtgaga ggcggcgggg 1620 actaaaacaa aacaataggc tacagaacaa tagccccaac aaagaaactg acaataggcc 1680 gcgcaacata agaatggcgc agaaatctcg tgaccgagaa tgcggagtat ggggcataga 1740 taagtcctgg ggtacggagc ttaccgagga gagcagatct agcgcatctg gcatttgagg 1800 agaggeteca acattgetea tgtagtteca agaggagage ttgetegegt cegttgtaaa 1860 ccgacgttgg agattcgaac gaacgtcgcc cgaagcccgt gggaaggctg acacaaagtt 1920 cgaatggccc ggcgaaagcg acgagtaacc ggggaagggg atctctgacg aagggggcga 1980 gcggggagag gggaatcgga gctcatcgag acgttcactt agtccgttct taaaggccat 2040 ggtgggcagg cgactggagg acgaggttta tcacagaact atacactcag gggccaaggg 2100 gaggeggagg teagetatgt catggtaegt taeggaegae agaataageg aagegtetga 2160 aaaaagagag atgtetggae aggagegaeg tttgeaagea gattgggage tegatettaa 2220 agtacagggc gcaaagccag cagagagtgt gtgtgatagt tggcggtgtg ctctctctac 2280 cagcgactca tgtaaggagt cgggactcaa gaggggcgga ggggtgattt ggcgaagcga 2340 gtctcgggaa agaacagcga ctcacccaca atgaacgcct cgatagtttg agtttcagga 2400 cagtaggaag cttcagatag ccgcttggtg cttgaacacg cgagtaagga ctgtcttgag 2460 gcgaaacccg gagccgtcca cgcactttcg cagtgctcct gaaagatgcg gagatctcgc 2520 tgacgctatc tgaattaccg cgtgggcgct ggccgggacg cgctctccct cgtgtagaga 2580 gcagcgagag acgcgtagtt gacaaacgaa tggaagtata tagaggaaga atatcgcgga 2640 tatgacaatg aggaaaggaa aaataactgt tatacaagtg gcatgggctg caaaagaaag 2700

gaggaagacc agaaagcgag agggaggcga gagaggggaa aaggaacgaa gtgggcggcg 2760 gctgggaagc aagcgggggg tttgagagtg actcgatggg cgctcgttta ggcagtgctc 2820 gecettagge gtagggaega ecaeggeeaa agegteettt tetettagge caeettateg 2880 ttgtgtcttt tttttatttc ttctttttt tgtggattcc cctggttttg tctgtggatt 2940 cgttgaccgg ttccctggat aatggtcaga acgttccttg gtcgcacgta tcttgactat 3000 aaaaattagt tacgagtact ccgtaaccaa catagtggct tttatttcta ccgattgctc 3060 agtaactaca acaatatacg gagtagtcta tctgttcatg catgtacgcc agtacctcga 3120 atggcagate agagatteee egacgagatt acteegtaet gttageetee etgetettga 3180 ttttcttgaa tgacagctgt cgcggaaaga taccacacca gtccctctcg atactctgtg 3240 cctttgcaga caacgaccca tcagccagaa atcgtaatca gtgtgccggc gcgttgtcta 3300 ttgactaggt ctgtttcgga acccaggctg ctgagctgtc ttgcttttgc caacccttcg 3360 gtcgatcgtt cgttttcgat ggatcaagga ttattattga atctcctgcg cggtcgattg 3420 tgattcggct aagcgctgct agtggtgact aggagcttcg tgctaatgca ttactttatt 3480 gggaatagag tgtccctcaa atttccagct ctagacaggg atcatggagt agatctccga 3540 gcgccctatc ttcttctgcc gcgaaaggat gcctgatgtg acagtaacgc tgacagtaac 3600 getggeacte gaeggageet aeteettete gataattett eatggeggae teteggtegg 3660 ttttgaggcc gacaaaacac tcgttcttct cctgctgggc gcgcccgacg tgcagtgctg 3720 gccgtaggcg tggccgctgc aagtgtttct gcagcaagtg tggatcccag cccgacttta 3780 ggtcgaagat gccacggcgg gcccgatgta actacatctg tatggaatgc ctgggtcagg 3840 gcccagaaac ctgcaagtct tttcacttcc acacaaaaga aaggagcgtg cggagtgcca 3900 gaggcctggg tctgcttact ggatcagtag tctggattga tgaccggtgc caaccaaaca 3960 tcacatggcg taccatgaaa tcagctgcta cggatagcca tgcgcgagcc aaaggtttcc 4020 gttgagggga agccaagccg atgggccagt tccatcgatc tctttgcttc tggaatccga 4080 actggttctc ggctctgcag gcaggcacat tcaatgtaag aggatcgaac ctcaagtcca 4140 gtcagtttga ataggtccga gcgggactgg tgtcaacgat tcatacgtcg gagcaagagt 4200 aatggttgaa cgggcacgga tgattgtctc atcacaaact gatgcaataa tggcttgcca 4260 cttagaacga agccattgga ggccaatggc ggctgctgat tggcacggtg gaggagaagc 4320

ggtgtacaat ggtgactgga ggcaaaacgg ccctggcacg atcgtggtag tattggacta 4380 caagaactcc attttcgttt cagttaagag aaactgcagg tactaaataa agtcgttctg 4440 aaagtgggac aggatttcaa tgaccgagaa attcgtggag tcgtggttct gaactttgag 4500 ggatcgactg tggattcgga tacctattga acctattgat agccgtaagc aaagctgtta 4560 tegeteece gacetetgea tateaategg geeagggage eggtgaggtt getaetagag 4620 cagacaaagt acctatgcgg gtacctgctc attctcaccc ggatgtaaaa gcaccaatat 4680 acagaggacc attcagcgat acgggcgacg attatagtac tgaggccaac aagagctgaa 4740 ataaaaaggg ctgggaaaaa aagtgagttt atgcttcgca tgccagtccc tagccttctg 4800 gcacagataa tctccgacaa taaaatcggg ctaggccttt actccggacc gtacgagtta 4860 ccggtagaca cgatttcagg ggcccggcat ccagcaagcc aaccagtcag gaatcccttc 4920 tecegtttge actittggge cagetecatg gatgateate eteggatagg eegggatace 4980 ttgccgtcag ctgctgcggt ctgaggagct ctagcagaga gtgactgcta gatgcgtatc 5040 ctcctaatcg tccgatcgcc tgacgagctc tctaacgcct gaacaaagga actccaagca 5100 atctcccaaa gtgagcacac gtcgaaccta gacaatgaat ttccccttgg gttggcccga 5160 gcatttaccc cggagtcctt agccgacgct gactgtccta acccaacctt aattgctcca 5220 caaagtgcgg cttgctacag ggtcgactta gatccgagga tccgatcccc aagcgcaggc 5280 aataggcccc gtaaactgcg tctgacagga cccgccgcga gtttgctcca ggttcaagcg 5340 ggttccagtc cttcctttcc tggacctgaa ggaaaagctc tattcatcca acgtggactc 5400 ggatacaatt ctttcgttct gttcatatgg acttcttaaa tgaagctcgt tagaaccttg 5460 ctctttgccc aatcaggatc ggctccatat ctgccaacga agacacaacc gctctatcgc 5520 gagtagegtt gaagggetag gegaegaatt geggaattee taagttgegg teagagagea 5580 cccactgttg ctaggcgtct aacatgcatg tgaggcactg atctggatta tcctctcgac 5640 ctttcgtcca acggctcgag ctgcgcttgc ataattgtcc tttttcgcct ccttagcttc 5700 tgtctggcct tcccctactg tatcggcgta ggccgtatcc tcttaatata cctggtcata 5760 cacgacatee tacegeacea getgeaagge gettgacaag tggegagtee aacattetgg 5820 cgattctata attcctggtc cgaaaagaac cggttggttg aaaagcggca gcctgtgatt 5880 ttccgttttc gtgatttatt gttctcttat caatgatcct gtcgtctggt tgagccggat 5940



<210>	786	
<211>	3417	
<212>	DNA	
<213×	Aspergillus nidul	2

<400> 786

ctctcttgct ctcttgtctc tttgatctcc ctctcgctgt cccaacctta tcactccact tgacgtcgtc gggctggacg ttcctaaagg gggattagat accgccatac tttacttcaa ggcctcttgt aggttgcctg ccttttctca catcttcatt gcgttcatca gtcatccgct 180 . accegecett gtetttetgt teceetteee tgeegtattt aegeteteaa ecaattetge 240 300 tccagccctt tatccatatt gaaccctcta tactctttaa tatctctcct agcgctgttc ctcacaattc gttcgtcgtc cgttaccctg gagtcgacag tgaatcgtcg cgccatccgt ggaccttgag accgtccgaa ttcttgtcac ttggtcttca ccatttgcgc ttttttatgc 420 tetttgegag eteatgttte atttactegt etetttettt tegeteeege eatgggtgge 480 ttcatgaatt attcatttac cgcttcgcgg tcggctttcc ttccactttc acatctctcc 540 gtctttaatg ctagtcagcg catcagatga acacagtcca tcaaacaaat atctgaagga 600 catcgtctaa tgttgatggt accaggttct agcttactcc acgtcgtcca ccggaaagac 660 aacagcactc ctttcttcct tgctgcgacg ggtgccttgc tgtcaacctt tcgcatagca 720 cgcgcgttct ggagccttgc tgtggtccat aatcgcgctt ggagtccagc ttcacgaaat ttcgctacca atggattcgt atgatactta cggatcctcg cccaggggcc gcgagggagg 840 agattettat atgagteggg ettegatgga ttegtaeaga egeagatege etggteggtt actotogogg cacattogto tottoagtoo titaactaat ottogatata giatoocaag 960 atcggcggcg tggacgcggg cgttcgcgct ctcctgtaat gatcgatcgg tacgaacctt 1020 cagategeag agettetegg gacgatttet actetgette gegegaacat aceggaegag 1080 accytgaaga tcyccytcyc cctccttctc cyatyyctyc gaacattyac cyttacyttc 1140

ccggacaaga cgctggcaag cgatcgatcc cctccaaccc cctgccgaat cctttgaatc 1200 ttgattttca agtaggcttc aattggttcg ctgaatggtg gcgagctgag caatctatca 1260 aagaggaaaa ggagcgtgca aagcacgggg gacgccggcc atccgaccgt gtgaagggag 1320 aacgtgaggc gcgggaagac cgtgacaggg aaagagccca gatacaggcg gcttacgata 1380 cctacaaggt ggatcttcag gtcaaaatgg ccagagcatt cgttcagcaa cataagaacg 1440 atgaatggtt caaagagcgc tacatcccgg agatacggga ccctcttcgt cgaaacctga 1500 tggaattcag agtgggcgct tatcagcagt gggagcggga tctcgatggg ggtttgtttg 1560 acgaatttac tctggagggc atctacaaaa gcgaaagtga cggcgcgggc ggcgtgattg 1620 agaaagagga aggcgagacg acagctgttg gggagaccct tggtgttcta gacttgcttc 1680 ctgccagagg cggagatctg cgtgacgaag ctttatcaca acccgccttg ctcatcaaga 1740 cgctggcacc aaacgtcagc cgtcagaaga tcgaggagtt ctgcaaggaa catcttggag 1800 aacaggatgg agggtttaga tggctcagtt taagtgatcc gaacccgtca aagaagtacc 1860 ataggatggg atggattatg ctacatectg eeecegaggt tgeggtegte gaaagaggtg 1920 atggacgcga agaagagggc gagatggacc aggacaatgt tgccaatgga tcgggagctg 1980 ccaccgttgc tgaaaaggca cttgaggcga ctaacgacaa gacaattcat gacccagttc 2040 atggagattt tgtatgccat gttggtgttc acgcgccgcc agctcaactt cgaaagaaag 2100 ccctatggga tcttttctct tcacctgacc ggattgagcg cgatctggag ttggctagga 2160 gattagtcgg gaagcttgac tctgaaatgg gacacggcgc tgatggttac gccaaggtcg 2220 aagaacgtgt tgaagaactt cgcggaaagg gctggttgca accaccggtt actggacccg 2280 ttagtgttaa gagaaggaaa tccaacttcg acgctgacga tgttgatgag ggtgaggctg 2340 aagaagggga agagcaggaa gactgggcag acgatgaggt cgatgatgag gagctcctgg 2400 cgaagaagaa gaaattggat ctgatggtag aataccttcg tcgagtgtat aacttctgct 2460 tettetgegt titegagtee gaetegetee aegagetaae gegeaagtgt eetggtggae 2520 atctccgtcg gccacgaagt ggtcttacca cccaggccaa agccgttgct aaagccagtg 2580 ccctcgggca acctttcccc gtcaagagga aagaccccag cgaggaaggc gaggagcaag 2640 caccetetag tgagaaggag agacgetece agagatacag ttegaagteg gageageaae 2700 tgcagcgtgc gtttaactgg gtaaagacat ttgaggacaa gattcttcag attctcgaac 2760

cagagaatgt ggacattgtc aaactcggtg gcaagcccgt tgacgaagcc ttggaagagg 2820
aactggccaa acatgtcaag caggaggatg agtcaaagtt ccggtgcaag gtgccagaat 2880
gcacgaaatt gttcaaggca gaacatttct ggcgtaaaca tgttgagaag agacactcgg 2940
agtggtatga acgtatcaaa aatgatgtaa gttgagattg ctctgagcgg tgacaatgta 3000
tgctaattta cccactacag ctcaccctcg tgaacgccta tgtgcttgac cctgctcgca 3060
ttgcgccttc gcggtccgac gccaatagca acggccactt ccctctcagc tccggtcaga 3120
accaggctgg cacacctcgt ggtttcagtc tggcagcaat gccccttac cttgctaatg 3180
gagcagtcgc agctggccta caaggcgtac cgggaggact gcccggtttc gtgacaacc 3240
aagcgtcttg ggctgcgaat ggcatggccg gcggcgaatt gcaccaacct ggtgcaatc 3300
gccgtggcgg aaaccgctac aacacaacatc gttccggacc ttacgatcgt cgtggcaatc 3360
ggcacgggac ccagggcttc ggccgcatga gaacggccg tggcatgct aacatgg 3417

<210> 787 <211> 2588 <212> DNA

<213> Aspergillus nidulans

<400> 787

atgggctggg agttaacgct caatgatcag caacagtata ccatggcccg agtcaaaagt 60 120 ccagtggcaa cagaagctca actttctacc cacttctcag tcgacgacct aatcaaacac tgctatgcta ccggttatgt cacagaggac aagcgaaaga aggagattcg aggccacaat 180 gcccctgtta tgacatttgc tactcagcct gccttggtta tccacaaaaa taacagtctt 240 caaatctccg ggaatcatac agtcgtctca accaacggct ctgagagtgt gacaaaggag 300 accccagcct ttgaaccgac cgaagctaca gaactcccgt accccagtga tattgttagc 360 ccagtaaccg gggatacttc tttcgaaagt actgatgcaa ctcgcatata tcagcgtcca caatctcgca cctcgctggc ggaaaattat ctcgacatgg caaatatgca atttcacact 480 tgggacgacc aaactgctct tctcccttac aacacagggc cgctgatgca agaatcgttc 540 gacgcacttg attttaagcc tttcctaaac atctaggtct cggttggttc caggcaactc 600 atgatetttt caggeegtge acacatacae tactegtaet tetgtgeace ateateeaat 660 ctggctgttg tactgcttcg tgcacatact catcccattt gttcttggct ctttcaacca 720

atagcetecg acceegaac aatgacaceg tactegcata ggecaeggea gteggeteag 780 agctgagacc gatagtgttg accaagaaga gagtcacttt cctgttgtcc gccggaacgg 840 atacttcaag ccatcacaag gagggggctt ctcatataaa tttccctatc tacttccata 900 ctatttcacg tccaattccg cctcgtttga tcggtcagat ctgcaatatc tcgcattttt 960 ccgaatgcgc ttctatctat ccgaggtgag gatctatcca tgctgtcaaa gcctactgtc 1020 cttcctgctt cgtccctctg acatttctta gttaaggaaa taattctatc tacggatcat 1080 gacgggcagg cggaccagca taatagcacg aaccggctac gaaatcttgg tgggacaggc 1140 taatatcgat cttttcgttt tatgttgttg ccttgcgtct gagccatagg actctgttcc 1200 ttcgagtttt ccaatagact tgggcgtgca tgaggtttca tgtatgggag aaagcatcaa 1260 taccggctca tttgttatcg ccggtctcta tttcagagac taaatagaat tatggcccgc 1320 aatgaaagta gaaagagtct tgatgacaaa tgagcgaagt gcatgagaac aaatttgaag 1380 taaatategt caatteetae agetacaaee tggteteega egaaetagat geetaeegae 1440 teggeteata tgtgtaaagg egeteaatea ttgattgetg gggetaeagg tettettetg 1500 tagctttcca catctctccg ataagccata ctatcacttt cttaaaaggga accaggaagg 1560 ttagacatgc aatattacca gaaaatcgag tctcagaagt gagccaaata tccgctgcta 1620 aagagagaaa cctcagtttg cctcctcgtc agattttgag ctcgttagcc acactacctc 1680 tttcaagcta ttcgtgtttg aaggggtaca ttggtcttgt gagatcctaa tttagagata 1740 acgagcagtg atagcgtagc gcataatgaa ttataccgaa actggaatat cagtataaag 1800 ttggaaggaa gaaaccataa tcatatctga caaccctggt actatcacag ttttagatcc 1860 tgaagtctgc gtgctattat atcatttctc aacgtgtttg agcccgccgg tagttaaggg 1920 cagggactgt ctagctatga agttgaagat catggaccca ccaccggcac tactccgtag 1980 tactgatggc ctatctctgg gatctaactt cgtcccaatg ggtttgtcac ttaagtccca 2040 ctgtaaattc gacagcgagc aggaatagtc taggtacggt tgatctgcgt cgtggtcaaa 2100 gagctcgaac ttaggtggtg gagagataag ttcttggccg aagtcaaaac aagacaagag 2160 ateggeaagt aaateegtgt gettgttaeg gaetgeagga etaggggttt ggeeaactet 2220 tattgagtct gaaagtgaca tatggacggt ggtataacaa gccatagtgg aaaacagcca 2280 aaatgaaatg aacgtaaaaa gtacagtaga gaaggaaatg aaagcataac gagagacact 2340

gtgtccaaat actggagctg ccaggagtca atataatatt ctgcaccacc actacttcgg 2400 attcatgggc cggtgatcta atcctcctga taggaaatct tgcgcatttc tcccagacga 2460 gtccgggcgc gacgaagggc attctcaagt tgaagtattt cgacctaaaa cgacatagct 2520 attagttcca atcaagcagc aagacagata ataacaacat gttcaatgtt gcggatacgg 2580 acgaggaa 2588

<210> 788 <211> 1124 <212> DNA

<213> Aspergillus nidulans

<400> 788

60 ccgctagtcc gtcgcaccca atggatagcg actccgacca tctatccgtc gcagcacaac agageceegt agtgeatgge aacgggeega ggggeageet eggeatgget gaataageaa 120 cacaaccacg agtctataag ttacatagcc tttactaaag tcgaatcgtt acaattgaga 180 tatagatagt acgagatete attgacgggt atgtggctgc ttattatatg tacttgtaag 240 gqttcaagat cccgttctac tagcagttag caacagtttg gaagaagcaa caatatggga ggttggtatg ggagcactca ccggatcata caattccttc agctgtttca tgagtttaag attggtgtca ttctgactgt atccaatgaa ctccttcttc gcaaggccaa gaccgtgttc 420 agcgctgatg ctgccatttc gtttttgaat ccactcatag acccaaggtt caatcgcctt ctcgacgtcc ttgttgtact ggcggactgc gatgttgaga tgcaaatttg agtcacccat 600 gtggccataa ccgacaaccg cgcggacggg gaacgagtca tcatcaccaa caaagcccat cttcgtcaag cgctctcggc agtcatcgac cagctggtac agctcgggaa gggggatcga 660 gacgtcgtac ttgtaggttc cgccaaggtg gctcagggcc tccgtgatcc cttctcgcca 720 780 gcgccagatg ctctggaatt gagtctcatc ttgggccaga acaccatccg cgacgatacc ctcacccatg acacteteca ggaaggtete cagtttttee atategtget eggeattega 840 tccactagtc tctatcaagc agtagaaagg gtattcctct tctaatggga atttattgcc 900 tgtqctgqcg tgcacgagct tctgactgcg gccgtccata agctcaaatg cggaaagaat ttcagacagt tgcttcttag cctcgccaaa ggcctggcgg accttatcgt agctctcgag 1020 accgaagtag gcaacattaa cggctttcgg gcggggaggg cacagaatcg aaacaccagt 1080

<210>	789
<211>	2427
<212>	DNA
<213>	Aspergillus nidulans

<400> 789

gatctaaagt gtctaatact gacattcgtt gttcccaaaa tttcgcgttc ctcgaatatc 60 agagtgatta ctatggctac tatgaagcga atcttgatgc acaccttgag ctcgacgcat ctgcagctct cgaactctat ttttggtgac tttatactca attcccttcg aagttctttg 180 cgggaacttc gggtattggc agggcaagtc ttgcaaactc gcaactcaag caagtatttc 240 aggtgctaat aactccttag acagtcgatt gtctgttttg tacgccattg tttagatcat 300 360 gaaaccaggc gcaggaattt cgttgtcatc ctaaactggt tgaaaaatct aacggaggaa 420 caagagacgg cacttcatga gacttgcatt atgagcttgt gtcggctagc acggtaatgt ttggtgtctg aggctggagt tggtgctggg gctgatagca ttaactacca ggttttcaaa 480 cgatgaagag atgaatataa tccttctccg cctcgtagag tatctcggac acccgaaccc attectetge ggegtggegt acacegaagt atgteaacea tegtettggt ttacetttae atgcttcatg acttttgtgc tttgggtgaa tcatctaacc ggctttcaga tatcgaagct tgcacaacat cttgtcatgt cgccggctgg gttatttcgt cctttctgga ggacactctc cgtgaccgtc gtcaagaatc tacaatcccg tccgtatatg gcggagcaat tatgcgacct gcttgggatg acagttgatg attttctgag actaacagaa gtctatgtct tgccccacct 840 ggtactctgg cgtaaaaggg aagttatcgc tcgaattggg tgtacctata aggacgccaa aacacccttc gatatatgct cagagaaaga caacctcgca gcaatacttg cgttcctact atgccaaccc tcatcagagc ctcagaaaat gattatgtca acgctgtctg ctgttgaccc 1020 tgctttcaac gggcgtaccc tagcagagct ggtgagaatc gagccaatct tgatcgcgtg 1080 cgaccttcta aaaggccttg gtgacagtga ggatgagaag ggagcaaagg tatgttaacc 1140 cagtgttctg taaaaccaac tatggggcat gtctctgatg aaaatggcag ttccaacaag 1200 ccctacgcat tctagcctct ctcgtgccac ggaaatccgc atatgcgtcg aaaaagtcaa 1260 atttggtagg ccacttcatt gaggagcatg tccttggaat aattacccaa tttgcgcacg 1320

ccataaatga tttccagata agacagccgc tcgtggagaa gaaaaggaac atcatggcta 1380 teggegegat gateaaagtt gegeeeggge atgteagtag tgetttgeet eaggtetgtt 1440 tttcgacccc gccacgacta gactgaccag acatactgaa cccgagcaga tatgtgcttg 1500 cctgcggtcg gcattagaga tcaaagaact gtgcaataat gccttccggg tatggggtgt 1560 gttagtgagc tetetgeata aagaagaggt egageetett etegaeeaga eactegetat 1620 cgtcatcaag cattgggtga cctttactga ggataccagg aagtttgctt acgagctggt 1680 tgagcatatc ttggagtctc accaggaact tctgcgagat atctttggta tcatgccgtc 1740 cttggcttct atacctgtac tctctcggtt cgaggctagt attaatgagt tgaaagggac 1800 actggatgtt cggagtcatt tcatggcttt cgcccgtcgt tgcctgagtg aaaatgccac 1860 tgtcgttgag caggccttga cggaacttgt ctcgtacctt gagagacacg aggagttcgt 1920 ccacagatet gtteteageg ageageeaga tecagetgte geacatttag ttaggtetet 1980 acttgactgc tgcgtgaagt tcaacattac gtcggaatcc atcaccttgc tttgcgctcg 2040 ctgtcttggc catatcggct gcctagatcc aaatcgggtt gacacaatca aagagaagaa 2100 agggateett gtattgtega attttgataa gatggaggag acattegaet tegtaetttt 2160 tttcttccaa cacgtgttgg ttgacgcctt tttatcagcg ttcaatacca gggcttaagg 2220 tttcctagca tatgccatgc agaatttact gatgttctgc aacctgaact ccgccgttac 2280 ccagcgttca cgcggtgtcc cagcttgcta gaaataccaa cggtggttag agctttccga 2340 accttgcgaa ttacctgccc cctttttgcc ttaagaatac cgttctatca tgaccctagt 2400 tcaatgcact ttcatgttgt ctcggat 2427

<210> 790 <211> 3281

<212> DNA

<213> Aspergillus nidulans

<400> 790

catggagaac agaagateet ggtecatgtt geegageate tegacagtgt tgtegeeggg 60
cttgageace aggtegttea ggaatgattg geeaagagag gtteegttet gaagegagae 120
gtecaaagte aggttgeeet gatgateagt tageaggaea ggeeaggae gattgtaett 180
gaggagteag cataceatgt ecaaetgeaa eaeggagggg ttgggaatgt agaeggagee 240

gacggcgttg ttgccgtcgt tacggtcgtc gaccatttcg agagacttga tgtcgaagcc 300 gtcgagcttg ttgagccctg tgcgtattca gtacatgacc accagcaaaa atcggttaac 360 tecageteae cetteatagt gacegtetta ttgtagtega egteaattgt eggeaggeet 420 ccctgcttca agcgaggctc gccataaacg ttcaagtgga actcctcact catcatgacc 480 gccgtcgcga aatccccaaa agcccccgca tcagtcaagt ccagccactg gtcaacattc 540 accacggcgc cgtcatcggc cttgacttga gggaccttga ccgttgcaaa cacgggcgag 600 ccgagaagac tgacgtcggc atcgaactcg aagatcttgg ggtggaacat gctgtcgctg 660 ccaataacct gtctctgggt aagatggaac ccatcggggg aaggatcgct gatttgcatg 720 gactcgacgg taagcgtcga gtcatcgata tcgtgctggg cgatgttcgg gtagccgaca tagacgctgc aagacatggt caataccgag ggcaattgag acttggagta gtgcacactt acactggaag cacaacgacc aagaccacca caataaaagc gatgaggtgc gcccaccacc 900 atttettgaa atgggeettg aegegagege egaagetggg tttegegete gtteceaegg ggacttcttc aacagcagct ttgtcggcca tcttgttcag gtactcggga cagcaggagc 1020 actogttota godacaccoa atocagtoac totgoggoto agoggogtga ggattgotog 1080 tgggacatac aatggtggat gtgttactaa cgaggtctag cgaggtctga accaacggtc 1140 agttactcag atcgacgata aggaacggat agggctggat gaagtcaaaa tgttatacct 1200 atctcaccac tgaaactctg cagacttgca agcttgcagg ctctggaaat cccgcgcaaa 1260 taaaaagact agaataaaag aaagatttaa cgaaagactg caacggaagc tcggaggcac 1320 cgcaatcacg gggactagga gtcgagcact attttagacg acccggggga gagtctggta 1380 ggagagacaa taaattggct aaacgagact cgatggatcc caagcatttt atctcttcgt 1440 ctggcagcaa gggcagaggg ggcggaaggc gatcacatgt ggccactgac ggcagtctca 1500 ttctcatcaa gcaccgcggg tctttgctgg tggagcgagc aagggttcat cttggtaacc 1560 ttettaacet tettageaac etgeaacaat ggatettgtt egeaacagga aaggggeeac 1620 tgagccactg agccactggg ccactgggcc actgtcacga gcaagggcga cagcaatttc 1680 agtcgtagtg cctcttatca gtgggaacgt cgattgctag gctgaagcag agcccgggat 1740 ataaagcctc ggtgagcccg ctgaaacaat cagtccaagg atctactttg acaggccatc 1800 catgcagcca tccatgcatc cacgcctgcg acaagcatta tcctaaagct atgaaactcg 1860

accgaatcga ccgagacgag ccgaggcgcg tcaccaaaaa agaaataaga aacagtcccc 1920 ggcagccgtt atcattgtct cccgcatgaa tcctgaatcc tgattcctga agcggccgtc 1980 caatattacc gttcaggcaa ggggccgcca atggaagaga cctgcgtctc tggcgaaagg 2040 gcactgctgg gaaacaagtc cagcccagcc taggatggag gcggttcccc aagttacccc 2100 atgttgatcc agtcttggcg cccgttccag cttctcattg ggcggagcat ccccaagcag 2160 agtgcctgga ctgtgtggga gtaagagcgg ctagtccagt agtatagcac tagcccaagg 2220 gccgttgtca ggctgcgcat ggaagcgaat gagaaagcac gcgatggccg gggggaaagt 2280 gcaggtggcg accggcttcg cctgtggtcc agttaacggg actggtcgag gtcgccgccg 2340 tacaacacga gacgactage cagtgegace etgteegtge ageagaceag teggteeggg 2400 ccaatgcagt ttctggcgcc tttggctgtt tctggccaca cctccgtcgc tagccctgaa 2460 cgagggaacc actgcgacaa ttgcgactac tgcgcccacg gcgcccacgg cgacccgatt 2520 aatatccgag agtaagagtc ccgtcgatgc gttcgcaggc cagttcagga acgatcgggt 2580 ttcaagaccc cccctctcca aagtgagact cgcggggttt aattgcaggt cgaatttccg 2640 ggaaggggct tgatggccct gtgaatcgat gaattcagac aaagcgggag catccgactg 2700 tcaaggctga ctaaacaaag cctgatgaca accccggatc tccacatatg caagtggaaa 2760 tgagacacgt acatcactgg aagggtcggg gcaatgccag ctgaaattca taaggagtga 2820 gtatcgtgga gtatccactt ccatcttcct atctatgtat gacaggtctc gtggcacgcc 2880 gacgggtgat atgcaggaat gcatacccct gtactgactc aacgccacag atttgaaggt 2940 ttacttaaag tagttcaaga gaaggaaaag tagttcatcg atgctaaatg cccaatgcgc 3000 aatgcacaat ttcgtcagta tcattgagta ctagctaagg aaggcaacga acggtccgcc 3060 acaggaggtg tatgcataga aagaaggaaa ataaatggaa agaggggccg gggccatcca 3120 gcagagaagg gatattagaa gggaactaaa tcatcacgca gtggttagat gaacgaaggg 3180 tatccaagaa gcgaattttg atgcccgcaa aagtttaaag aaaaagcagt gatcctgctc 3240 aatggtgaag tcttgcgatc ggagaaaaaa aaaaaaaaa a 3281

<210> 791 <211> 3328

<212> DNA

<213> Aspergillus nidulans

cacaaccggt ttggcgcgcc atcgccctcg atacatccga caaggtacaa cgtcgcgtaa 60 accacctggg ccttgccaaa gacgaacatt tgcgccacac cctcctgcaa gatgtcgagt 120 cactacgaaa acagggagca agcgctggag aagtccttga gatagtgggc gatgtgacgg 180 acttaaagac gtcaacggca ctgatcgatg aagcagtcaa gcgctgggga aagctggacg cttttgtcgc gaatgcgggt gttttcaggc aggctgagct gttcgagtat accagacctt ctcccactgt gcgagatgcg acatcactct gacagtcata gactcgagcc cgatctcctc aaccacagcc ttgatgtgaa tgtgaaaggc accttctact cgtgccggtc cgccgcccqc 420 caaatggtca agcggggcca cggaggctcc atcatcgcca tctcctcggt gagcgcgcta 480 gttggtggta ggctacagac gccctatact cccacgaagg cggcagtact ctcactcatg caatctaggg ctatcgcact agggaaacac aagatccggt gcaacgcgct gctgcccggg 600 acgatcatca cgcaactggc agatcacgat ataaaagatc cagcgaagaa ggcgtatctg 660 gaagcgagga ttccgttagg gagggttggc gagccggaag gcatgacagg gccagcagtg 720 ttcttggcga gcgaggagat gagccggttc gtcaattgga gtggcctgct ggaggatggg 780 ggaatgtttt gtaacctgca gtagttgtaa gcatagttga tctgaatgca attgtccaac 840 aaaccttggt aatcccgaat ttgaatataa tccaggtcaa gaatgatttt cacgaccctc 900 acacattatt agtgtaggag gtaaatagag ctaacagatc ctcacggggg caccaaggag aaagtgcatc ctccactttg atctatcatc ttcttacttt tattccagtt ttctcttctg 1020 cctccaacaa tggtcttagg agaatgaaca ctaaccttgt tcgattctcg agtggtcgaa 1080 aatctcgtgg tcgcggattg cgcaccaaga ccggctggta tgtgtcgaat ctgctttgtc 1140 tettegttat eegetegtgt ttetatette eeeggttace tacettteat gaetaagaag 1200 agaacagtgt aacttgtcgc aagaggcacc ttaaatgcga cgaagtcaaa cctgtttgcg 1260 gacatggtca aagtcagccc tcagtgcgac tactctcgat cctcctccca ccaccctgcc 1320 gagcaacccg ccgaagacga ggccatccag tcatctccaa acacaaatac tacagcccag 1380 tttattcctt cagtaccaga aacaggcacc gataacgtgg ctggtgtatc gcctcgcgaa 1440 cagccggatt ctgccgtcct ttcgtggacc ggtcatagcc aaccctgcct tcatccactc 1500 gatcagctag cagccattgt cgcaattgac cacacttctc cctttgctaa tagccttaca 1560

gcaccgcagt attctcctga tattccacag tcggtgacca tcaccatcga gtcccccgga 1620 ccagctataa atgccgcaac tgtgcgatgg ttcgacttac tcgccaatga tgctgtccgc 1680 gaaagccccc agatctcgag cgtattcggc tccggtcaag aggtattgga ggatgcggat 1740 gaatcacaga ttacaccttt acagcgtgcc acacgtatag gggatcgaac ccatcttaat 1800 gaagaggccg tgcagccgag cttgaactcg ggaaaaacga ttcgcaacgc aatacaatca 1860 gaaaccatta cccatgcggt gaatacacca aagggttctt ctcctgagga aaggttatgg 1920 caageccaag agaatateca gettetteca catgagtttt etetettega gaaetttgtt 1980 cagagggtta gcccgtggat tgatcttttc gatcctacaa acaagttttc aacttttgta 2040 cctcaccttg cggtatgtcc ctggccttcc tgtaaagatg gctctgactg ttaggatgcg 2100 caatgcgggc ttgttgaatg caattctagc cttgtcattt ctcactcaat cccggaaacg 2160 cttcgcacga gtcacctcac cgtgagacgt cgctgcagta ctactatcag acactgcact 2220 acgtccagaa agctatgcaa tactcgagct ataaaaccag tttagaactt cttgccacag 2280 tectaateat etecaettat gagatgetgg aegatteaag eeaggaetgg eagegaeatt 2340 tagaaggcgt cttcctgatt caacgctctc aagtgataca tggcgactcc ggcggactaa 2400 gaagcgcagt ttggtgggca tggctctgcc aagatgtatg ggcagcattc cgtgagagac 2460 ggaagacact cacgttttgg gttcccaaaa agacgtatgc ggaccttagt ccgtccgaaa 2520 ttgctgctcg gtctatgttt gtccttacaa aggtcatcaa ttactgctca cgagaggaat 2580 ctgctcttgc agagataaac atacaagcta gggtagatgg agcaaagcct ctgcgcggca 2640 tgttggatga gtggtggaat catataactg tcgaattcag tcccctacca gccatggccc 2700 ctaaacaacc agcggcattt agacccatat ggattcggac gccgtcattt ggtaagttga 2760 gatettgata aaccettgae atceatgttg tttatgttee acaaegggte aatgtegaat 2820 cgctatcaat ttcgctgact atatgaagct gtcgccgttc aattacattg tgtggcccat 2880 atcctacttt actcacacga gccttgcatt ggaggtttgg ctggttatct agagcggcaa 2940 acaagaattc ggcaatgcgt cgaaatcata tgcggcatcg ccatgacact aaacgatggc 3000 gettetggea taateteate eeaatgeata tttateggta egttgegeet etttttgaaa 3060 cccttgtata ctcacaccgt cagctaggat gtttacgcag ggaagccact cccgcgaatg 3120 cgtgctagat ctcctagagt cttgtcgacg atggactggc tggcaagtcc actctttcgg 3180

agatgaatta aaacagatat ggaaatcaca cgaatcttct aagcctaacg ggaccccagc 3240 gtacgcgagc ttattgaatc gtcattgatc attgctgcca ctattgagct atttatgctc 3300 tgcccacgga accgatgatc tccatcca 3328

<210> 792 <211> 2108 <212> DNA <213> Aspergillus nidulans

<400> 792

atataagacg ggcctcttcg gcttacatca gggttcggcg tcgactcggt ttgaatgaag 60 atagttcgtt tgccagttgg aggctgcccg ttgactcggc cgtgagctgc agacagctgg 120 tgcggtcgca acgtcggcct atgcgggttt ctgaagcggt gattgttggt aagcgtgccg 180 agttgtgaat acttctaatt gacccaaagg caaagggtct aattgtccga ggggaagcct 240 cagcaaagtt caatatctgt gctgccaaac ggttgctgag gattgtccgc ttgaccatat 300 ttgcagatgt tgagctagaa gccattttcg cgatcaagaa tacccaagag atatgatgtg 360 ttgtgctgcg ttgaaagtat cgcctccgga taagtttttg gatcatggct ggcaagggac tctgacgcaa tgtaatcacg tgacttggag ctgacaaatc atcttgcacc caatcatagc gagcatgttt tgatcagatg aaccgtttcg tcaatacacc ttaatacacc tctgaatcca taggactcca tggacagaga gttggataat gctgctagca ggccataaaa aacgggcatg 600 cccgcaaggc acatgtaaag cgcgtcttgc aatatgcatc aagaagctta atctgcgagc 660 tttttagcaa ctgagcacat tttgagctga taatctcctc tgctgagcat ccgatacaag 720 ccaaaccata cctttcaatc aagaagcagt tacgaggcct gagtgtggta aagtcacaag 780 tacaccctgg caccacttca atttgccagc aatcgtttcg tcgagaaaaa attgcacaca 840 ttaaatcaac ggtgccagct atacccaagt gtcttcatat ttggttaaat gaataatagg 900 atcgagcggc aaatttcccc agcacaatgt cgagcaagtg ctccataagc tgtcggtatc 960 aacattcaac gtctccgtaa cccggttcgt ccggtccact gtctgctcat tggtggaact 1020 ataattgatt gggattggaa aatctctagc tcgtctgtca aggacaacgg gtaattcgcc 1080 aatgegegga taaageagta tegaagtate eeaatgaate aggtggaatt etgegeetae 1140 caacagttga agggttgagc ctcctcagaa tcaactcagt cctgagggtg tctcggaaac 1200

atccataagg catgctgaga ctttcagatg gatccagttt ctgctgcata aagctacagg 1260 cttggtgcga gtcctgaaaa cttcatgaag gatacttaag ctaacatccc attctggcac 1320 ggtttctcag agcttcccga taagtgagaa tataatcatt gaattgttcc atatcacgaa 1380 qcaatttact acqatqaact catcaaagga tcagacttat ccgtatcgcg tgagtcgcta 1440 gtctcccatg cctaggagtt gtataggtag gggacgttcg cttctcatat agtcacggag 1500 ctaatcaaqa agtatatatt gagaagttct ggttgtgatg acgtggaacg ccggactgac 1560 cqtcacataa cacaqttgac gatgaaacaa cttcgcggtg ttctttctcc ttgagcagat 1620 gttcgcgtca atattgcgag acagcttcgg acgtgtgcta tccatgccat gaaccccggc 1680 aaatcaatca agcaattagg gaaaatttag acacaaaagc caggcaataa ataagaccaa 1740 atcatatttt gtataatttt agtcaagatc ggaacgctat tactgcagga gcataatcaa 1800 aggatacact cttatccaat atgtctacat gccgaaatat tcagactgat tatggtatct 1860 ttggtgctaa taaacgctta tttgagaata tgtttgtgat agctgtgctg tggcgtactg 1920 gacccatgcc accaggcacg aaatacatgc ggcgtgcagt gtctcgcacg tgactccata 1980 ccgtatttga tatctgcagt tactgtgccg tgtattatca ccactgcgtt ccactactag 2040 aggacttgga acggacaggg cgacggtcac ttaactgaca atactcagcc ataatgacaa 2100 2108 gtacattg

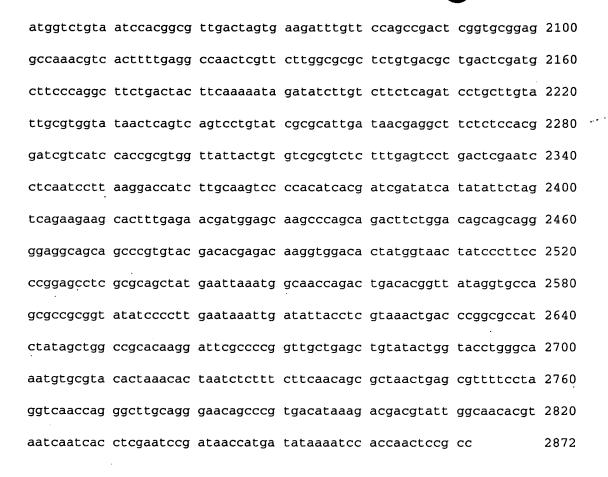
<210> 793 <211> 2872 <212> DNA

<213> Aspergillus nidulans

<400> 793

teegetgega ggteceaact gegaggaatt tggtececga tteecacett tateagaege 60 gtatgatett gatttgegte gteaggtaca tgaageetgg agaaaatace tggaeeettg 120 cagtaaacga aggttacacg agggegtgta tgcettegtt tgtggaeega ggtaageaga 180 tatgeeecaa tggetgetgg gggagtttgg tatgaeaagg ecacagttae gaaacgaggg 240 cagagtgeeg attgeteege eageteggag eggatettgt tggaatgtee acagteeeeg 300 agattgtggt tgeaaggeae tgeggettge gaateatage atteagtttg gtgaeaaata 360 atgetgtget tteaeetgtt eccegtgggg atgateatet cateeaggga agggatgtga 420

aagagttaga tgccatcctg caagagggta aagccaacca cgaagaggtg ctcgaagctg 480 gccgggaggc agcccaggac atgcaggtaa gtgctagtgc gttctctttt cccatgttga 540 gaattgacac cttgttagaa gttggttgtg catgtcatat ccaagatttt ctagtgtcac 600 aactcatgac actaccacag caggagcgga ggggataaac cgattcctaa gatccggccg 660 tccgtggagg tacttctctt tggagtttgg acagcttggt tgttgaatat atcattgtcg 720 attetteetg cettttettt tggccactaa actettgtag aaageegtet teccaetteg tttettetge tgeacateat tgtaeetggt tteaaagege etggtetett tetecaaage 840 caaagcctca tcaacaaacg tctttttgcg atctcgcttg gggatacgac cactaaagaa 900 ttctgtcgga ccttcaatga tagttcccac ttgggagtac tttggaggtt gcgccttgcc 960 gctttccttt ttgtaatgtc gtttagggtc taatatggaa cgcatccgta gaagttgcaa 1020 gtctcttttt agatcaggcg tcagttcggt ttttggaaga ttgaaccatt cactgccggc 1080 tgtcggctta tcctaaaacg tacgatcatc agcatatcgc tagttggaga ctgaggggaa 1140 aaaaggaacg tggacgaaat aatgatgctc agagtaacta tgaaacagtg tactctcatg 1200 ataacagcgc agcccaatac gggctgtaga aactgcatca agcgcttgcg cgatgggttg 1260 gttttcctca tagcaatcaa caatgataag aagggatggt gacgctgtaa acaagaaagc 1320 taccttttta gaggtcttcg gcactatctt ttcattggca gatgactgag tgcagttact 1380 gactaatggg tcaattatcc ttgctgtatc gacaactgca acatcattgt gttgtcgaac 1440 ataaggtttt agggaggatc cagaggagaa cttcggaatg ctagaagata ttagcactca 1500 cccatgagag ccgattttgg taatacatac ttgggaagta cctgtccaga ttgacgaagt 1560 gcgacggaat cattggcggt cctgaccgtg tcgttgcgaa gccgtttctc tgcctcagcg 1620 agaagatgct ggatattgtc atcagttaat tcagtatggt cctgtgactg cacatttgaa 1680 agctcaggca aaatatccat agccaagtac ggatgggtgt ttagcacaaa gaagaaaata 1740 aaaagaaaga agtgaactag gaggagctta gcgatttata gaggagcaaa aaagcgcgca 1800 gactgcgatg cgagaaattt ctgtttgtgg ggcgagcttg ggcagagctc gtgatgaaca 1860 gcttgatttc tccaaaattg ggctgtataa ttagtaatag tttatatgta gatgattatg 1920 tgcataccgg tggaccaaat gctgttaaag tatcggtacc atatgagctc acgcaacaga 1980 gaaatttett tettgeatag tgacatgeaa acteetgaaa caattaetae ttgtaaatat 2040



<210> 794 <211> 2046 <212> DNA

<213> Aspergillus nidulans

<400> 794

gtccaggcca tgtcacagtg tcaggacaca tcaagtgcac aggttctatc tagagcttaa 60
ataatgtgta agtataccat taacgaccag gccatgactc ctcaccttgg cctccaattc 120
ctcatatagg atcatccgac agcaccgtcc tctcgatcga cgcttacctt actggtaacc 180
gataactcag gccaatatca acaagtcatg tgcccacaaa cccaagcaac cagccaaatt 240
gataagggtg aatgcccacg ccaacctgaa tccggctatt cacggaatta ctcaaacccg 300
gcagagacgg gataacacca accagaaacg caacaacagc gcgccaattt accagccacg 360
cgttgaaccg gtagatcggc gtgtcgggct gatacaaagc aacggtatca tattttcggt 420
tcttaatcag ccaaaaaatcc cacagcatga tggcggcaat gggcccgagg aaaatggcat 480
atgcagacat gaagttcagg aaattgctgg cactctccaa aatcttccaa gggaccagag 540

600 cccacgatat aacaccgcat ataatctggc cgcgacgcag atcaacatat gtggggaata gagecatgag gtegttegea geggaaateg agttegeget gatgtteaeg eetagagatg 660 cgagacgaag gagaacgcgc cgaagaagcg cgccgcacgc gagtcccagt gggatatcag 720 ctcgattgga tcccagggga tggagggcgt attgtaccgc gtccatccag cagaggaggc 780 ggcgatgccg atgaatgaga tgaaggtgaa gatcacaggg agaagaggga tgtacaggag 840 ctgccatttt gcggagaccc gcgagtaacg ggaaaagtcg ctctgtagat atagatatta 900 gtttcaggcc atcactgtag ggttggggta agaggctaag ggtcgagata cagtacctgg 960 ttaacactaa gegtggeata atteeceage acactegtea taetegegag ceagaceeae 1020 gagtactgac ttccagacac agtagccctc tgctcaaaga gcgcgccctt cccctctgcc 1080 acgaacgccc agatcagtat ggcaatccaa gccgcaggga caagcacgct cttggtggcg 1140 aacagccagc gcactttatt cgggtggatg cagaggaacg gcatctgcac gatccagaag 1200 atcatgtacg cgatcatcgt atttgtctcg attccctggt cctgagggat ggtattcttc 1260 atgctaagga acgagggcca gatagcgctg atcatggcct tgacggcgtt tgcaccgttg 1320 acattctgga tcgcaaacca gaaaatggcc aggatcacgc gtgagatgat tgcaatgtag 1380 gagccccaga aaccccatga agcgcgcgcg attacgggga aggggatatg gtagatggaa 1440 ccgacggcgc cgttggctgc gatgacgaag gagatgatga agaaagagag ggcgacgatg 1500 cccgagggat tcgcgccacg aaaggcctac tgcaataatg ctggaggcga attgccaggt 1560 egeagegttg aaggegteag agateeagta tgetatteea teaateagtt ettgetaeat 1620 tgcaagtata ctgggaggtg aaggggcagt ggtgggtaca gatgaaactg agcgggcccc 1680 aaactcgacc ggcgcgggga acggggtcaa gattgagatt tgttcagcgt gcgttgccag 1740 atgcgaaagc ggtccggtac tgcttaacgc ggaggagtaa gcgaccgaaa ctcattttgg 1800 gtttttttttg tttaatggcc agttacaggc aaatgttatt tgcaggtggt atttatggta 1860 attititical aggettactt tittigttit tittitaatgt attatggtgg gicticitti 1920 teggttettt tatteatttt tgteetattg tettgattet ttttgttate tgtettggat 1980 tactgtttat ttttttaata ctttatgata aggttatttt tttctaaatt ctattattat 2040 2046 tgtcta

<210> 795

<211> 2667

<212> DNA

<213> Aspergillus nidulans

<400> 795

60 ccctttccat aacactcgat actgcgcttg ctgtagatca ccgagacggt tgatccaatg cccatgatga gtagcagagc gcccagcgta cttgtcgata tcagcgccaa cttccagtac 120 ttgacaaagg cgatcacaaa cgcagtcacg aaactggcga cacccgtcag cacgaggctg gctttctccg agattccgtc ttggatgagg tgcatatcgc ccgagatccg ggtcgtgatc tctcctgcgc ccagggagtc gaagaaggcg atgttctgct gcaggatggc ctgcaggtag 300 cggactcgaa tcttctgggt aatggagttc cccgtatgca caaaggcaaa cgtcgcaaag 360 ccgatggtca agaattcgcc gatacccaag tacagaaagt agaagacatt cttggtcagc gtatcgtaaa actcatcata aggcatcgca tagctcgcga catcacggaa agtggacgtg 480 atgtttccga aaaacacctt caccaatcag cacaatcctc cacgccgagg gaccatttga 540 600 gtaactgcag aaagaaagga gggacgtaca gtaaaaagcg gcaacgctgc tcccccgcca actgcacaga cagctcctag cacaagcagg acaagatccc acccagttgc gtagccgtag 660 attctaaagt acccgacctt gggtgtgggc atggcaacct gcgcctcaag aacctgcttt 720 tgcacgtctg aaagcaacag catcgactgg cggttcaggc gcatcggtcc cgaatccgtg 780 agaatctcct cgcgcgagtc ggcgcccggc cattcggaga gcataaagag agagcggcgc 840 gtcatgcgca ttgacatggg cattgtcggc tcgagaggaa tctcctcttg gggatcatgc caagggccct tgttcatgct caagctcata cctctgctgg cgcgagagcg ccagcgggcg cccgcttgag cgctggagcg gtgctggcgg tccggccgca tggtgggttg aacgagagtg 1020 gacggatagg tagacaaacg agtggtgtgc agctggctta ctagcttgca atctgaataa 1080 acagaataac tgaagactgg gcaagactat tctcatagca tccccatgct gagctcaagg 1140 accegeggtt ggaacgaceg gatggactet gacgtgatae taggattgga gaaagageag 1200 agacagettg acegtgatag acaagaceae tgacageace aaaaaatgat aataaaaaaa 1260 aactaaaaaa atactgaaaa atataaaaac aaagataaca caaagacggt tgaccacgac 1320 caagcgaaac cggagaagag cagagaacag agtgaggaac cccttggata gaatcctgag 1380 agtatcagta tggcaccaca accagaaccg caagactcag cagaaacacc tcgttcagat 1440

ccagacaccg acaacacagc cgaaacacgc ccgtgacaat gcccaatgcc gttatcttga 1500 ctagccttac ccgtccgacc gtgtaggaga ggtcatgtgt caattcctag ctaagcttcg 1560 ggcgcatgaa acgcgacgag actagactag cacccagacc tggggtagat cacagccata 1620 atcacagatc acagaccata atttaccgtc atagtggaag gatctgaatc gagttccgga 1680 tegggteatt teccegtege eggeeeteae gttegeagee eeteataege agttteegee 1740 gaacgggata cagatacatc aaccgttgga gatgatgcag tgatgaaaca ccggagggtc 1800 ctgaatcagg gcacggcgat cacggatcag atcagatccc gctgaccagg ctcggcagtt 1860 gggaaattgc ctaggctgcg ggtaatatac aggtcggcca acgtcacgca cagggcagcg 1920 tggggcgtcg gggcgtgttt cagggcatgg tttagcattg gagccccctg atctcggggc 1980 tcaactgctc ttaactgtca cgctagctca gtagcggctg ttgatagtgg gccggcgact 2040 tgtcggggca tcttcctctc ccatacattc tgggcccggt cgacgatcgg tgtctgaggc 2100 ctgtacatgc agttcgaaca ggcaagcaat gcgagatgta aacagtggct gcgctaatta 2160 gagettgaaa etageatete aggegaaace ataatgtata taetatagag tetatatace 2220 ctgtatactc taaacctaaa tccctgctct gtcgacctcg acttcacaag atcgacagcg 2280 gccgcaaggg agcttttgca atgaagttct tggcgataaa ttgatgctcg gtaatcttat 2340 tgccccggac tgccagtcct aagcctgccc agtctaaagc ttgtcgcacc gatggcctgc 2400 tagcggccga ctagactggc cttgaccatg tgaatgccac ttgcgtagat ggccgagtcg 2460 tttctgacta ggtatcatgt ccgtttcact gtcatccatt tctatagttt gtatccgtat 2520 gaaaaatgct gtggttggcc aattttccag gcattcaggc ctgggacaat ggtgatccgc 2580 cttggaccaa ctcaagttag aatgtcgcca tcgcttcggg acttgtcagt tactgtcaca 2640 tttagcatat ttgataggtc tgtgatt 2667

<210> 796

<211> 3156

<212> DNA

<213> Aspergillus nidulans

<400> 796

agtottttag ototggtgag coatatactg aagogacact ggocacagtg otogtgotoa 60 ctactttoga ggtatagtgo attgtogttg atgoatatoo tagottacto cottgtgtat 120

ttgttttcta atgtatgcta accttacaac atccattcag gaatttattg gtgattgggt caatctggtt gatcatcatc aggccgccca tgtcctgatt cgcgaactct tgtcgcctga gtcagcttgt tcagatgatg ttcatagaca tatcttcgag tggtatgcac ggttcgatat agtegeeggt attgteteeg ggaatgaaat ggttetaggg egagattggt acategegeg 360 agaagagtac gacacaaagg aagcagcgag gaacccggac gacatcgaaa agcaaatgat 420 tctgctatct tcaattagtc gtcgctttgg tctagagctg gcgtcgttat acgctaagtt 480 gtcccgcgga atgatcgaat tcagtgattt tttgactgag aatgacaaac tcggtcaaag tcttgagcaa atcaaggaca ttttaagccg atttgctaca caatatgtcg tcgaaacctt 600 cccggatcag aaacccttga caaaagatga ccttgttaat ccctacgaac ctgggcgttt 660 acactacggc ccactgtggg aggccaactt ttactggatt gactattact caatgaaagc 720 catgttcaag ttccagttcc tcatggccac gcaacaggga tcgatgaatg aattgctggc 780 tttgtcatac gaacaggtcc gtttgattga gacgattgaa cgctggcctg acaaggaaaa 840 gggctatatg ttcgcattca agaacagcgc cacaatggca agcatgtttc tcccgcgaga 900 tgatcggcat ctcaactgga gcagaggcat ctttgctctc atggagcgaa atgggtgagt tagggtatta ctaaaagtac ttgcctcaga actgcaagct aacgggtggg ctttagctac 1020 gtgattgccc ctaaataccg agctgttctt gccgccctct ggcagctacc ggaaattcat 1080 cattggtggc ttccggacgg cagagattat ccgtcaatca tccgtgaggt gcgcgaaatg 1140 accgaggagc gaacaactaa ccctcgagat aacttccggg agagcgtgcg cgatatgaaa 1200 gccgtatttg ggaaactcaa ccttgatgaa actgagagcg aagctagccc ggcttctgta 1260 agcacggatg tecegeagte aaegggttea aateagtage etggeatgat egeateeggt 1320 gcaacagtcg tetectaatg agacggactg cetgtgecac gggeettetg geetettegg 1380 cctctcgtgg ctataataat gtccaattct cctgagggag attatcaaga cgttaaaaac 1440 tacctgaatc gcatgctgga cttttcctac gttcatactt cctctgattt aacgcattat 1500 acceacaacg ttgttactat tatacacata atettgeagt actagaegga egeetetggt 1560 gtcattggat atcatattct gtgcagtatt gcctctcaat tctatagaac agacctttcg 1620 ggctcgtctc actcagaccc tcgataggga acttccctcg ccaaaaccaac cgtctccaaa 1680 ccccggcta actiticcat ticccacca teatectgat caatiticee ccaaggcaac 1740

gcttcaacat caacctccca tcccagcaaa catctcaata ctacacccgc cccagcctta 1800 ctcataaccg agttcatctc cttacatcgc tcatcgcaca cacactccag gcagcccttc 1860 ggtgtaacgc aggcacaagc ctctatccgc gcgacagcac gcttcaggag cgagtcaatg 1920 aactcgaatg cctttcgtgc aatgccggaa ccgcatgagc ctcccttcgc atcgtaaaat 1980 gtcaatcgtg cgggtcgttg gcggtgtggg ggcttcagca cggggatatt gtcttggtca 2040 ccaacgccac cacccctcct cacaactttc tgcaaatcct tgcccaattc cttcttcgca 2100 accttacact cogtoctaac atcaccogga ctogagatga caaaactogg caggagagat 2160 aagattgcat gttcagctgc atgaatcgca gcagcaatat tcaggcgtct ggattcgagt 2220 atatcaageg caacettggg aacategage cacatecett tegteatgat tgtgatggge 2280 gggttgtcaa cggcaacagc gtcaaggacg cgcccgcgtt tgtcaatctt gaagaagccg 2340 tagacgatgg cgtggatgcg aatggggccg aagaaagcgc gaatcgccct ttctttttct 2400 cgttccagtg agcgggtgct tgaggagtct gttatttttg tggctttggt tggggaggat 2460 gaggtaatga gacgcatgtg ctctgtctca acagggtcga tgtctgtgaa gtcgcgctgc 2520 atagtattcc aatcgaccgt gacgcagaca acacgagcaa agaagcggtc agggtttagt 2580 tctttgacga gatatgtttg gccttggtga aggaagatgc caccttcgta aagggtgaag 2640 aaaqcqcqqq aggcttcaac ctcttcqaga accacattcc qagcgttcqt tgtgtcaatg 2700 acggcaaagt gctggtcttc tgtgtcgcga atggggacgc aacgtgacgg ctggggtctg 2760 aacctctcat gacaatggta aaaccccatt gcatcacgga caaggcgggt ggatgcgaat 2820 tcagatagct ggggaccaaa gtagatctga tcatcgtcgg gcttgatggg gagttcaaag 2880 gcagcgcatt gaacatggcc ttctaagaca agttcgttgg tgagatcaac ctgcagttcg 2940 cagtteggtt tggagaagag etetteagga tttegeatgt agaattggte tgtgggatag 3000 cgctcgccaa taagaatgga aaggctgtcc ttgtttctgc gtccagcgcg gccgctctgc 3060 tggcgcaaat ttgaaatcga gtacggaaag ccaagtgtaa tgaccgcatc cagggagccg 3120 atgtaacgcc tagttcgagg gcattggttg cacgat 3156

<210> 797 <211> 3065

<212> DNA

<213> Aspergillus nidulans

ctcctatgct atggagtcga ttagtcacag atgtctcgtt tcacaacgtg acgtttttgc 60 acacatgaga cctgcagctg ccatgttaaa acacagaatg ttccggcctt gagcgacaga gacgcgtgtt ctcgcatctt tcattacctg atttccagaa gcgattagac catagtggac 180 ctgaggctct tctgtcgtgc gttcagggcg atccactagc tcgctcgtat cacaagccga 240 gcagtcggac ttgttcccaa cgtggtcgta agttgattgg aagagctgat cttttgatgg tcgcggaaac tgtgtctgca cttcctcttt atgcaggctg ctggccatga tattgcaaag tgagattttg ccgagcatat aatcactctc catctgggcg atcgtcttga gcagtatcgg cggaggcttg ttgagcgatc ctgtatggta aaagtgtcca ttgcccaccg ttttgccata atcatactga atgacgccgc cgaaggtatc agatggcttg ctgaccacaa tatcgcccag acgtatatea ggttttccta atgggacccc gccgccgatg ccgaccgtca aggcgaactg 600 gatattcggg taggtagact tcaagtatgc caccgcggca gtagccgaag ttgtcccata 660 gacacccgca gggagacaga ccaccactat attatggccg ccaatactcc caagagtgta gacattgaga tccgattttg gttgatgaag tcgaggatga acttcgtcca ggaatatctt tgccgccgcc aactctatcg gtaaggcgca tatccacgca atagtgtagg aatcgtgtgt gaacgtcata tcgccagtca tgcgccagtg taatatgttt cattcggttc cttttcacct gtccaactcc atcagtaact cgaagacgaa aacacaagat aggaagggta atcggtattt agacgaagag gcatcgggga ggtgaaggtg gaaaaacagc cgccgcgagg ctgacaccgc 1020 tcaccagtga tcattggtcc atgtaatgta cggaggtata ttgtaagcaa cagaatgtaa 1080 gcaacaaact cagtcgcaca aagcaaatcc atttccattg cgattgatat attaatgatg 1140 ttgcaccgaa tatgggagga caaaggtccc tttctgctct tgggtacaac cttcacggtt 1200 attctatatg gttaaacctc taaagaatga gaaccgccaa agtgagcctg ccgctagcga 1260 ctgataagag gacacttgat ctgctctica cagtgaagct ggatgcagta atccactgat 1320 tgagccagat agtattettt tetgteegta tgatttaaeg teaaggtega gtteatgteg 1380 gaggcaatat cggcttagaa atgttttgtt tgtcattagc gccagcatat atattccgct 1440 gggaagcgaa cagcgcaccc cagtcattgt aaccgggaat aagcaattaa gacatcgtct 1500 tgcctgcgaa aatataacga ctctacctgg agtccactga aaaatacgct tcgttatcat 1560

tgacctctat tgtacattat gtgcgagccg actagtccag gaacttgcga actgcgcctc 1620 cgacgttctt gacatcaagg aggaatgtgt catgaccaaa gagagacacg tcgttgccca 1680 gctcaatatg ctccacggtc ttgttccctg cttgaatcag agtctccgcg atctcgcgct 1740 gttgccacgc cgggaagaga atgtcgcttg cgactccgat taccagcacc tgatqqtctt 1800 tcagcggcgc aagcccggca acaagatcgt tcggagccga cccggtctct gaagcggaag 1860 cagactgete ggeggatgte gaggeagatg getgeteetg gtatggetgt teaggaagtg 1920 taaggetgea egaegeatea ttgaeagtgt ttgtteeget getaatette geetgggeet 1980 ccgccctctg cttcttcgtc gcgagttgct gagtcaaccc taggtcaaac agatccatcg 2040 cettggagat gtagagcagg etgttggeat egtattecaa geagaatttt teaceggegt 2100 ggtcgagata cgtctcgatg agaaagtcgg ggcaaagcgc aggctgtttg ctcggatcag 2160 cccgtttccg accaaagcgt ttctcccatt ctggtccgct gcggtacgtg acggtggcaa 2220 tctcgcgagc gagcttcatg cctgaatgag gtgggatcga atcgtagtag aaacctcgag 2280 cccaatttgg atccatcatc aacacctgcc gctgggtatg gcgcatagca atgctgtacg 2340 gatggcttcg agcacaaccg ctaatcgaca caatcttgcc cactcgctct gggaacagaa 2400 caccggctgc aagactctgc ataccaccca tgctggagcc gacggacgcg tagagtttcc 2460 gaaccccaag atggtccaaa aggcggaact gcgctcgcac catatcttca attgtcagga 2520 tgggaaaccg cgtagcatac ttcttcccat ccgacgggtc caccgtcgag ggccccgtgc 2580 taccgtagca ccctccaagg acattggtgc agatcacaaa gtacttgtcc gtatctagcg 2640 tcttcccagg acctatgaat ttctcccacc agccgggctt cgggttcgct tcggtgctgt 2700 gcgcatggct agatgcagac agaccggtat gcagcagaat gacattatcc ttcttctcgt 2760 tcagctggcc ccatgtctca tatgcgatat caaattctgg aagcaaaccg ccccaatcaa 2820 ggagcagcgg ttcgtcggaa tggaatcgtt cgtggtggcc ggcggtatag gagggttcag 2880 ggcctgaacc aagagatcgc gcggaaagaa gagcggactt ggcctcctgg gcgtcgaggc 2940 aagggaagga cagcgcggga ttcgaggagt cgcgtgggga tggagcgggg gactgagacc 3000 ccgttgatcg taatgatcga gaatggttaa acgaccggct gttggacgga caggcgatgg 3060 cggct 3065

<210> 798

<211> 2432 <212> DNA <213> Aspergillus nidulans

798

<400>

caagctcgtg gatgcttgta tgaagaagga cgtgggggct cagaagcgct tggcgaaaaa gaagcaaaag tgaactgtga agtgaatgta catagactag ctaggggatc tgatacccgt gaccggagct gtatactgaa acgcacactt ttcgatgatt aagacccata gccacgggag cgggagcggg tacctaccca agtaccctac gtatgactaa gagtgggaac gcaactatca 240 tggatcgact gacagggctg ctttcttgac taccatttgt cttacggggt tggggctgga 300 ttttcgcatt tgctcacgct ctctttgcct tctctcgtta catctgtggc ttgtcgtaca tatgttaccc tcaataaatt attattagtc catgttcata ttgacgcctt tcttttcgtc 420 tagtcaggtt ttttaccttc attttctgaa ctatatccca gccggctgcg acaactcttt 480 gaggggaggc ttcgattacc tccaaaaagg agggacaggc tttactctcc aagtaaaaaa 540 gcctcagatt cgccgagtag ttcaaacgcg ccctgctgcc ccttctccct ccgcaaacaa 600 ggcgacgcct cgaactgttc cctccgggcc tcaaaagaaa actccagaga cagccagtcg 660 gtcagttacg ggagaaagag gcttttcacc ttcaaagcga cggctgacac cattacgcaa 720 ccgtaagcgc ccgactcctg aacagcggct gtccagtgac gatgacgatg acggaagcga 780 tacggatact tctctcgaac tacgtaaacg tgcgagaact ggcgaaagtg cagaaccgga 840 cattgtacac gcttcggaga tcacgtctgt gcagaagccg ggaaagttca agccagcttt cgagaatatg aaccagactt ccgaaatatt tcttcaatat cccagtgcga cgccaaaaga 1020 aaggtatgcc tataagttgg acagaggcgt ctagttggct aatatcattt atcgggttag 1080 atatgaagct gtggttccac gcgacgacga cgaatttaag cccctcgacg atattgttca 1140 ggttatcgaa acagtaactc aagcgtatat accagaagac gaactggacg aattcaataa 1200 tgagtctacg ggaatcaaac gaagattacg gcgagcgctg gcgcggggtt ctgagcgtga 1260 gtttcgcgag tcggtgaaag actacaatgt tgcgattgag cggctccgac gaagcggtag 1320 tategegaaa aaattggaeg ceaeetateg geteagtett eegeaegtgg aaegeateet 1380 aactcagatc tactcccgaa cagtatcccc gcgggttgat tctcttcggc agtacgagaa 1440

cggaacggac aatgtctacg gagaacttct ccctcgattt attagcacga ttttcaagga 1500 aaccgggcta aagtcaaacc atgtttttgt tgatctcggc tcgggtgttg gtaatgtggt 1560 cctgcaagca gctttggaga ttggctgtga gagctggggt tgtgaaatga tgcagaacgc 1620 atgcgatctc gcggacttca acaagcggaa ttcaaggcac gttgtcggtt atggggtatc 1680 gctccaggca aaacacatct tgtacgaggc gattttctca aggaacagag tatcatcgac 1740 gtactaaaaa gagccgacgt cgttttaata aacaaccaag cgtttacccc ccaactcaat 1800 aacgagctca tcaaccattt tttggatatg aaagagggat gccagatcgt ctctctcaaa 1860 tctttcgtcc ctgtcggtca taagattcag tcacggaatc tcaactcacc tatcaacctt 1920 ctgacagtga aacagaggca gtattggtct aacagcgtca gttggacaga cgttggaggc 1980 tcttatttca tcgcgaccaa agacagttct cgactcaagg ctttttcgga aagcctggct 2040 taacaaacta tttttcgcaa tgacgcttca agaacgttat cctggacaaa tttggtacac 2100 ttgtataaac ccttttttt ttcgttatac agacttttgg ctggagggac atacttttgg 2160 actacataaa caagatacca ctactaaatc gaatatacca tagacagcgc tcatcgccca 2220 ctgtgattta tgatatatga ccccgtttat tgcaccttgc cacatgcaag catggtagaa 2280 gcataagtag cgcagagttt ctcgtctcgt tttttagaaa aaaaaaacca tctatccagt 2340 tagatatett tetagtgtgg aggtgaaata tegagaagat tagaaagege gtgteeagaa 2400 gttagtagat agaagtcggg tatcatgaga at 2432

<210> 799

<211> 1910

<212> DNA

<213> Aspergillus nidulans

<400> 799

ttgggttgga tttcgtgtgg tctgaattgc atgatttaag cttagatgag gtgctctcag 60
atgaggtgct cgcagatcat caggtttaat ccaggtcgaa tttcgacttc tggcaatggg 120
ggtagatgac aaacagcctc cagctaacct gtcgtatgta actgcgtctg ctgattctga 180
attctcagga gaagtgtaga gtcgctttgt agtgtgcctg attgacatac cgggcattcc 240
tggtaaattt gaagggagtc tgttggagaa gactgattcc aacgagcatg aagtcgatct 300
ggcagtcgtg gctggataga tgttgtaaga gagctgaaag atagaacaaa cggcaaaccc 360

atgtttcagc tgtttcagct ctggactagc cctgactcgc agccgtcaaa tgctttgtac tgagaggaag gctgggctaa ggcaagggac atccataaac ccttgtccat cattgtgctg gatctacact caatgaacgg aaacccaaga actagcggaa tatgctggcg agcacatata 540 tacccataaa atatctatac ctttatatgt accgttgtac agaaatgaat aatagacaga 600 gagcataata acgggcatta tagttcataa gccttctcaa accccatact ccatactccg 660 tgagcccctt gcaccggatg cggccctttc agctgatatt gcttcctatt ctccgtgtac gacgcagcac ctacgtgctg catctgagag ggtacaattg ccagccggtc tagaccattt gcatccgcca tgcgctcgat cgcactatcc accgcaagag gccgtgcata ccgcgcttgc 840 cctaagtaat caataagcgc ggggacgttc tcacggggaa acataagtgc ctgggagcaa 900 catccatgag aattcataag atgtataccc ggtttcaagg gtagcattgt aacgcggccc gcaaggaagt acagaataat aagcaaggga atgcaaccga aacagaccac accgataaag 1020 gaattgttca gtattccttg caatggtcgt atcgagcgac gagtctggat gcatatgaca 1080 gcgactgtgg cgataatccc gacgctacaa gccgtataaa ggagccagtt ctcgctgttc 1140 caccccagaa acttctccgt gtagaagagc cgcacgtata gccagttctt gattaggcct 1200 ctttcacgcc acgactggat agttttgaca ctctgcatgg tgtggttgta ccagttacgc 1260 tgtgcgacca cgtcgtcctc cagcatcatt atccatggcg cctgggtatc ttcgtagcag 1320 gatttcagcg agaggtggta gtcgatgaga gacttgtgct tgacgtcctt cttctcctcg 1380 agccgacgaa gcgtagaaaa tttgacgtcg aattggtcgt aggtcaggac gcggtcaacg 1440 acattgggca gccatggctg gttgtagtcc gggtgttcgg tcgggggaagt taatgcgaag 1500 aggacgtgga cggtgatggt gtcgcgctct ttctcggaca gattatcgag gatggaagca 1560 acggtcgtag agattttctg ctcaagcggt cgcttcactg tgacgactcc gacgcagatc 1620 gtggcatcgt cggcggaagt agtgaagttt cttgcgggat gggtagggtc attgaacgac 1680 tggttgtacg gttggagata ctctagcgac tcatccagtc gttttagact atactccggt 1740 cggtagcett cetetggate gaagaaaaac gageetggat egegagetga aegaaatttg 1800 tagacgatca gaaggaatag gtagaagacg gcaaagccga cgaggaagag cttctgcttc 1860 ctggtgaaga aaatcatcat ttggccgtga gcatcttgat gagcatgata 1910

<210> 800

<211> 1199 <212> DNA

<213> Aspergillus nidulans

<400> 800

agtetttega atactgtgae aacaaaggta ageageteat geteetegtg tagaacaaaa gtcactgcca gatatccaat ctgcttctcg gaatacttgt tggaggagat caagttgaca gcctccagat gaccaaaatc gacatcgtac ccctgaatgt agacatagag caatttgcac acatatttct tcttctgata cccgtcgaga tttcctgact tgaacttttg ccggatattc 240 gccaattett tatttacteg etteteetee agttegegeg etettgeatt tegeaaatea 300 gcgatgaact gaactagtcc gcgcatagaa gacatgtttg ctgggaggtc tcgtcgactc 360 gatgaaataa atgagcggcg gggtctgggt gcggtaagga gcgaacgagt tatgcgagac 420 tcggaaagcc gtaatgtaag gtgaactgag gggatacagt tgtccttgcg atcttctgta 480 ggtgctcaca ccgtggcagg gtgtacactc agtatgtgta tatcatagaa ccatatcctg 540 ccgcccgctt tatcggttcg tgtctgacga tgattctagg attctatgcc gcatcgatca 600 tggcgcaagt taaggaaagc gtgtcttcga cgcagctcag gagctagcgc agcgcaaaac agggatagtc aacgtcggtg tatacctggg tagctccaat atcaagccag gcactggata 720 acagtgattg gaaagatgca ctgcgatcac agttagcgaa atgcgagatc cgaaaagtta 780 agcatctccc tacagggcgg gctacagctg gtaaggagcg gcccccgttt ctggatgcta agccactccc agggtagatc cggtggagat ccggaacatt gttgatacga tgcggcggtg catctacata gctactgcac cagctgtgca aagaaagatt cccgcgcaag atattgtttt cctctgataa taagtttcat ctaagtcctt attttacatc tgaatgcatg tgtcctccaa 1020 gtccatagat cccaaaacgc caagccgcag ccatgcataa atagaagtcg gcaaatggtt 1080 tcaactactt gcgtcagtac gttaatagta tgatcattcg tattatttcc tgcttcgtaa 1140 gaaagccgcg acctgctcat gtcgtgtcac aaagaacatt cttttgcgat ctgacttcc 1199

<210> 801

<211> 1180

<212>

<213> Aspergillus nidulans

DNA

<400> 801

ggttcgctaa ttgtcttccc tgaggctggt tcaacaaatc ggtagtactg ggctctggtg 60 agtgtttggt agtatcgcat atatatagtg gatacacgga gttcagattt tggcgatgga 120 tagtcaacga aggacgcagg acagattcat atgaaaactg gaccctcgga ctccagcatc 180 caccctagtc caataccata atctgcgttg gggtttccag accttcaccg acagccattt 240 tcatgttcga agacgaagta ggatcttagg cgtagtatct atgccacata ctttatgcac 300 atgactggct gattaataaa agacgacagg acaggaatcg gaaaaagtat accatggttt catggcggtc acagateteg ttatecacee tattegeggt gggecggtea ggcgacagat 420 ategeaaget agggtetttg gecaceecat gagtettagg gggaaettgt ggeateetea 480 gacgcaagac ggattgtgac gtataagaaa tttatagcgt ccaagttgtc agctaaggta 540 gaggetteat teaagettga agaagtgttg ttgteeataa aagetaeega egegtaette 600 cagatgttaa atgatgtgtg cgatatcatt cgcaaggtac tttgtcctcc aggggtagta 660 gagccggccc gtcgtaataa aacctgccca gataggatac tcggttggcg caatgctaat 720 attgatgata gcaccccage gagacaagta ttcccattct actcaactgt tcaaagtgtt 780 ggccaggcct tgacatactc tgcgcattac ccgtaacggg ccaacgcaaa acccgcaatg 840 ggtcgggtac ggattcaaac cttgaacccg tgctgttttg agtaacccgt gggttgccaa 900 acagaacaaa catactgtat aagcctagaa ttgtgataag tcaggaggtt catgtagtaa 960 atatagcctc atatagaagt tttacgcaac atgggttctt ggtgggtaac ttacgggtac 1020 ccatagcccg cacgggctgg cgggttttgg acggatcctg acccgtgggt tcgggatttg 1080 atcttagacc cgtcacaggc ttttgtcata gtctagtgct ggcaatgata accagcagcc 1140 taacaaatct cacccgtaca cggtgaagct tacccctagt 1180

<210> 802

<211> 2470

<212> DNA

<213> Aspergillus nidulans

<400> 802

ttcgcaaaga catgatgttc cggccaagaa agcatctgcc cactgaggga ttattccaga 60 gaagcccgta gcctagtgat gaaaccagaa agggaatgct cgcctgagag ttacgatggg 120 cgagttctag ctgatgccc ttgaggtcga ggaagggctg ctggtactgt cccataccga 180

acagcattte eteegtactg aegetetega ategagetgt cagatggaag etetegetgt tcaggatggg tcgaaattct cgtgcctcca cctcgatggc actgcacttg ggatccttca catectteeg gttgeggaea tacteetgea atagaagett teetttggag ttetgtaett ggattttccc agtctctgaa aggcttgctt gaatcttgcc attctgtatc acgcccgtcc 420 cgttggactg aacgttgatg attgccgatg tcgaaggctg gttgagcaac gcccaattct ggtcagggat ctgccgcgag cgagtggagc ggactcgaat ggcgtttggc ccccatggct .540 caatccacag agtetetgea teaaaggtgt agaccaaett gtegteeaaa eettgaatea 600 tagtgtgcgg tggtgggatg gtgcttgaga aattagggct gagttacgta ggctcacgat ctatccacgc tggaggagat tcgagaattc aagaatcgaa ttaggcattc cgcgatgctt aggctaattg gcaaggtatt actttcccac tcccttgttt atgtattgga acggcaggaa tttgttggag ataccccacc ggagccaccg gcccagcagt ttccctaaga acattcggaa 840 gaaatcagtt cttaacggcc gaatccaccg agggagtcat gcgaaagccg ccaccggatg 900 aaggettget aaceteega tgggttteeg gtggegtaet gteacateae gatetgetea 960 atatetecee gettgatgga atetggagaa ggeteeagta eeceagatea geeeaceatt 1020 atccacgttg ctgggtatat acataaaaga gtggatcctc cactcatgac aatcagccta 1080 cggtgtacca aatacggtca gccgtctcaa gttttaagaa tcaccttcac atcatggtct 1140 ccgagcataa cgatgggatt gttcatccta cctccataga gaaggagcac gccctctcg 1200 aagctccctc taaggatgac acatctcttg cccgccttgc ggctcaacaa gaacatcatt 1260 tgggcttctg ggaggcggtg cggtgctatc caaatgccgt cctgtggtcg gtactcctct 1320 cgacttcgat tattatggag ggatatgata tcgttctgat ccagtccttc ttcgcccaac 1380 cgtcattccg agagaaatat ggccaatacg acgctggcac cagtagtcat cagattaccg 1440 ctccctggca gaatgggctc agcaacgctg tcagcgttgg taccattatt ggagcttttg 1500 ccaatgggta ttttgtccat aaatttggct accgtaaagt cctcctggcg tctcttgtca 1560 cgatctgcgg ctttatcttg atttccttct ttacgcccaa cttgcctgtt cttttagttg 1620 gccagtttct ttgcggtata ccgtggggtg tatttgctac tatggcacct gcctatgcct 1680 cagaggtetg ecceettgeg etcegaggtt atettactgt etatgteaac etgtgttggg 1740 catttggcca gctcatctct gcgggcgtgc aatcgggctt ttctgagaaa actggtcaat 1800

ggtcctaccg catcccgttc gctatacagt gggcctggcc ctgcctactc ttcccgatcc 1860
tctggtttgc ccccgagtcg ccttggtact atgtccgcgt cggtaaccac gatctggctg 1920
aagcctctat taatcggctg ggatcagcct cacaaaagggc gcacagcaag gaaaccctcg 1980
caatgatgat ccatacagac gagattgagc gatcaattga tgaaggaacc tcatatctcg 2040
actgctttcg tggcgtggac ctccgccgga ccgagattgc atgtatggca ttcgcggcac 2100
agcccttctg cgggagtgca atgggcggaa cgccaacata tttcttcgtc caggctggcc 2160
ttccggagtc tatatccttt cgcatgtcgg ttggtggctt aggtatcgct tcagtgggca 2220
cgatctttgc atggttcttg atgcgcggt gtggacggcg cacgttgtat ctatgggggc 2280
tgggcttact tacgctggtt ctcctcgctg ttggcttttg cagtgttgg agcaattcga 2340
acgcgagcaa ttatgcccag gccgggctga tgctctgctg gctaggcgtg ctgaagaaca 2460
agagtgtatg

<210> 803 <211> 2691 <212> DNA

<213> Aspergillus nidulans

<400> 803

tggttatctg catccgttca gaatagcggc gtgtcatagg tgagacagcg tccgtttgtg 60
tgagtcggca gcgagatggt caacgctcgt gcgggtaata ttgtctcgaa tctgctgagg 120
tgtgacttat agattagacc cgccatggtc tgatctgagg gttgcgttca actcagaaga 180
tacactgttc gagtcgacct gtgagggtga cagtgcattg gaggtctcat tctcagtccc 240
agtggattca tcaacccccg attgctcctc caagtgttta tcttgatcta gatctgacat 300
attagggctc gtggtaccat cgctgcgatt gtcgctcgtc gaaaatccta tttctcgaga 360
cgtaggctgt cgatgcgaag agtcatcatg agacgtgggc tgggagctcg attgctgagg 420
taggtggaga gccttttgga tggcgagttc agaaaagaca gaatctgtaa ccctgctcat 480
gaaatctgtc tctgcgatcg atgtgaaagc ttaggggctg agagagtctg catgagtgga 540
acttttaag acccaattga agttcagatg agtaaggtta ggtatacctc tggaccttcc 600
gcatgtgaaa gaccagtcat acggtaaccg gccttcgggc tccgatcaca tgatagttat 660

tttactttaa cggcatgatg ttttttacgt agatttgata tctggcttgc ttaatctgaa cactacttga caagcatgaa tacatactcc tatagataga cctaacgctg gtggtcgatt 780 agacattagt gtttgtatgc cgccgagaag tagctccgat gatttcattc ggttgcgatt 840 cgtcccacca ccacaacgaa ttccaccaac acccaacagc tgggaataat agtgcgcggc 900 actttcagac tcttatctga ggatggtagg gatccagact aatggaaaaa tgaatgtgat 960 tgattcggtt ctgactttca catcattctc agtcgaagca atacctttca tacggctctg 1020 cagacaatag taagctaagc tttgtataat tttctgttgt tcttcgctga aatgcagtag 1080 ctcatcccac tgatatattt gctttggctg tgaccgaaaa gcagattttg tcagcatcag 1140 ggtccaatgc tctccaggtt cattcgacga ccaaccctga ttttccctta gtccaaaccc 1200 ttgaagccca taaggccgga tgccatcatg tggtgaccga tgcaaaagga tcaagggccg 1260 tcagtgttgg ctttgggggt gaggtcgtaa tttgggagtc.tcatgagggg acgtggtcta 1320 agacaaagga tgttgtgctt gcggatatct gggccgttgc cctctctgcc gacggccagt 1380 acttagccgg taccacgcag gatggtcacg tcaaggtctg ggacatgaac gcaaacgagg 1440 aagaaatacg tgatcacgaa acaaagggca gttttggaac ctgcatagac ttggtaggca 1500 ttccggtcta tcgtctgcgc tattcaaatc tgatcttctt tgatagtcac cggacgggcg 1560 attcattgcc agcggccatg agaatggcag cgtatacatt ttcagtacag aaacgggacg 1620 catgccattt agtctatcag gtatgtccta cacttaacat tcgtttcctc gggatcaaaa 1680 cgcgcacgta ttaaccgctc aataggtctg gtaaaaccgg tacggtccgt tgccttttcc 1740 cctggtggga aattcctcgc tgcggctggg gactctagag tgattgtgct atacgataca 1800 acctctggcg agcaggtggc aagccttacc ggtcatgctg catggattct atcactctcc 1860 tggagcaata ctggagaata teteetaage gggtgagtgt ettetetta teeettgtga 1920 ccccgagctg atcaaatggt acaagatcat tcgacggcaa agtcaaagtt tggtcaattg 1980 atacgaggaa ctgtgttgca acccattccg aaaccgaaag agccatttgg agcgtgatat 2040 ggttgcctaa gatcggaaag tcagagggat ttgctacggc tggtgccaat agaagcatat 2100 ctttctacag ggaagccaca ggaggttgaa tcgctatgtt gagcattaag ccagcccttg 2160 tgcagttcta attacggtca cgacatcgcg tatcataaac caatgctgag atctgcttac 2220 cttgttcttc aatatttacg tgctccatac ttacacgagt ctgcgttcta tgtaatacat 2280

acgtattgaa agcccaaaag cettettget getgggetge actgggacat cetgacatee 2340 ggcatgaata tetaaacatt teacgccatt aaatgtetea accaegagat gettgegget 2400 gttatattet gaacgcagaa acatetgtag ataegettag ataagegeae eggttgeggg 2460 egggeggtag ettegattge ettettetgg egaetteage geaegtteae aceggattag 2520 tegtageatt aacttateat teteetgaea atgaegatgg eggeagegge ggeggegaat 2580 ggaeetggat ggtattaeat gaettgaeet etaeteaaee tagetgattt atteegetee 2640 tateteeete gaattaetet teaettettg getaggtaea ecegaeettg g 2691

- <210> 804 <211> 5336
- <212> DNA
- <213> Aspergillus nidulans
- <223> unsure at all n locations
- <400> 804

cacaacctgt aggcaatgat cgtctttgtc gacttcggcg acaagtcctg gggtgttcgc 60 gcctgtcaat cgtactttgg cggcattgac ccgtcaagaa cactccacgt gggcgatcaa 120 ttcttgtctg ctggtgcgaa tgatttcaag gtcagtgttc tgtgacttct ttttcgtctg 180 ggagaaggtg attaaatggt ctgatacagg ctcgtctggc ttctaccact gcctggatcg 240 ctagtccggc tgagacggtg cagttgttgg atgagttgga cacgatccag aaagttctag 300 cgtgagagaa cttacatttt ggcatgggtt ttattcggcg cctacttcgg aagagattct gtaatcttcg cttgtgatct gactcggcca tgtccgggtt ttggtttcgg tttctttcag 420 cgtcttgtca ttcatttgat atggttaggt atttcttgtt ataatctgct gcggccgatt 480 ettecattte cactegacge agttteettg taatcaactg cegeggeege tteetgeeat 540 taatggaatt agctagagcc tgttacggac catgatctgt gcggtttagc tcagatttag 600 gtagaattgc caataggact cgattaacac tataatccgt acttcctata atgggtataa 660. agteggtaaa etggetgggt ettggaacae tgetgageae tgetgagega eecatatgtg 720 cgttccgaaa gatacttaag tctactttgc aagtcqgaat taactqaatc ttqtaaatct 780 tcttgaagtt ttaaaaatcc attcattcac tgcatgttct cataagctgg aattgagtct tatctactct tagaaacgag gcactagacg caatatacac ctcccaaacg ctaaagccag 900 caaagagccg acatggactc atgacaagtg tgccggactc gaaggtcgcg tccggctctc 960

atcctcataa ccggtccaca ttgctttggc ccccgcccgt cccgacaaga tgttaactgt 1020 atcctgcaac tgcaaccaga attcggcctt gggacgccgt ctcgcccagt ccgtctcgac 1080 cttctcgagt ccatgttcac cacccatgac ggagaagagg acttgggagc ccttgatgcc 1140 aatgacggtt gcagacatet categttege gatttegtet tttgatttae eegegtagee 1200 ctccaggtgc atcatacact tgattgccat gcgcagcgcg cgaatgcggt ccatgggcga 1260 gggettgeet eeetgetgga agtggeeggg aactgeggea egggaetega ageggeeett 1320 tgcttcctcc ttgatcatat cagcaatgac ctgtgtggtg tatgtggatg aggcagtctc 1380 attgcgcatg atgatettte eggegeggtt ggeaceettg tegegggeaa agttetegeg 1440 gagaaaatcg atgtctcggg cgagcatctt gatgtcgatt ccttcttcag ggatgtatac 1500 ggcgactgcg ccgacggcca accetgctgt tgtagcgatg tagcctgatt taccgccctg 1560 ggtttcgatg acgaagacgc ggcgacggga ggaggaggct gactggcgaa ttgcgtcgca 1620 gaagtcgatc agggcgttga ggcaggtgtc gctgccgagg gagtactcag tgcccgggac 1680 gttgttggag attgtggcgg gcaggacaac catggggatc ttgaaggcgt cgtatttgtc 1740 gcgagcttgg cggagctggc tcactgccgt gaaggcttca aagccaccaa cgacaaataa 1800 ggcgtcgaac ttgtgctctt tgaagcacct ggcaacctcg tcgtagtctt cagacgggag 1860 accgcggttt gtgccgatgt cggaaccacc ctcgtttacc cacgcgtctg tttcttgcca 1920 tttgacttcg cgcactgagc tgatgggttg atctgcgtgg tggcggatca agccggggaa 1980 accepting atggcaatce gagtetence accepting accepting atgecatce accepting accepting atgecatce accepting accepting atgecatce accepting accepting at a contract accepting accepting at a contract accepting accepting accepting at a contract accepting accepting at a contract accepting acceptance accepting accepting accepting acceptance accepting acceptance accepting acceptance accepting acceptance accepting acceptance acceptanc tgtagcttgg ttcatgcctc cagccggggc accgacgtgg acaatggcaa tgcgcattct 2100 ctgctacgca ttagagagag gctatgctta acggtaagag actacgtacc ttttcttggg 2160 tcaaggagag tttggggtga tcaggtgtgg cagttttcag ataagcaaag tggtactctt 2220 tgaattctga gtcgcgcaac aacatcgcct tctcaaattc tctgtttttg atgtgagctg 2280 taacctcctg cgtggccttg acagcgtcca tcaacggggt gcgcatgatc ttgttctcgc 2340 ggatcgtgat cactggggaa ggagagtccg gcgtcatgtc caaaacagca cgaacggcct 2400 caacacettg cagggtegat agegategat egtaggegea ggeggeteet eetetttggg 2460 tgtgtccgag aattgttgta cgagtgtcaa gtccgaggcg ctcggtgaga atatctttaa 2520 egegateact tgtgatettg ttgaggttte gatettgege teetteggeg acgatgaeaa 2580

tggttctgcg cttgccacgt tcccgacggt tctgcgagat cgtcagttga ctgagcctag 2640 tcaggatcca aaagttctca cctttgtgat gttcgcgcac atgatatcct cccagccatc 2700 cttagggggc atctcaggaa tgaaaagcca gtcggcgcct gtgctaatgg cagccatcag 2760 agcaagccaa cegcaatgee ggeecataae ttegataaeg aageeteget ggtgggagaa 2820 cgcagtgtcg aagacgtcat caacagcatc gcagatccga gtcaacgagg agtagcagcc 2880 aatagtggca teegtaeegg acatgtegtt gteaattgag eecaegagae egacaatgtt 2940 caagactctg tacggetega ectgetetge egteaattet ecattettea ecagetegte 3000 caataaacca ggccattcag agcggaaaac atcggcacca gtcaaactac cgtcaccacc 3060 gcagacaacc aatgcgtcga ttccgcgcag gaccatgttt ttagcggcgc ggagacggcc 3120 agatetetea egaaaagaca tgeagegage ggateegate aatgtaceee eetgggagag 3180 ccatccacga acatattccc agtgtagctg tcggatcatg tccccgcctt ccaccagacc 3240 ttcgtatccc tcgtaaacgg cgtaagctcg cagtcggagt gaatggccat gggaccaccg 3300 ctcgtactgc accgttcata ccgggggcat ctcctccaga ggtgaggaca ccaatgcggc 3360 gcagcttggg agggggaggt tgagtagcga ctgttggggc catcacgacg gtgactgcga 3420 caaatcgatc tccaggacga agagtggcag ctcagtcgat tgagctagaa cgatgcaggg 3480 cagcaacaga ttggataaat gggagagaag aagcagtgac gaaagagtga gttgatggga 3540 gacgatgtgg tgcgtggtgg gggttccggt gagaaaaagc gggctgcggg taaggtacgt 3600 cacagaccag cttgaagctg atgataagca cacacgaatt actgctcaat gatcttgtta 3660 gcgctgtagt caatcaaaaa atcaaatggc attgatgtca attgctctca gtcctgaggt 3720 cagcccggac tetttatgcc tgggtaattg ggtgattgat caggatatca agttgtacaa 3780 tetgactgcc agegacetga gggggaagat etgetgatgt cacegagtgg geccatteeg 3840 gctcaattgg gttagcgtaa tacaggagca cgtgccagcc ctctagggca gggcttcgag 3900 ggcatgtgac gacttggtag gctgctattc gagatagtat ggtatgcatt ctagcaaaat 3960 tggctattag atggcatgag tatggcaaga tgctcatcct cttccgtgtt tgctattctg 4020 ccacgttgat tatcagtggt ctcggccagc ctcgaatttc agtggcgctc gccaagtaaa 4080 ctcccttcga cgtccaaata tatatatcgg cgggttactg cctatcaccg cgcaataacc 4140 tgattcactt tacagctact ccgtaaaatt atcgcagatt acgtggctaa aggctaatgg 4200

aataatgagg tcgtaaccac cctttaccaa ctgtacagag taactctaaa gtgagtacaa 4260 catacctcgt tcgaacgctc aacaaagcag cgacggagcc ggtcacgtgc actaaagacc 4320 aageteeeeg accaagegga etttegaagt egaetteggg ceaetegeag ggtggetegt 4380 ctacaatcat gtcggactct ttcaccgtct cgcttcgccc gatacgcgaa aaacgcgatc 4440 gtccagattc tttaccccgt gagatcgctc agatcaacgc gcaatggggg tccttccgag 4500 agctcagcga ggcgaagtta cgggagatga tcgaggagga caaacacaag gaccattggg 4560 aggaagacga tgagggtgac aaggaatcga cggacttgga gacgtcggag cagttggacc 4620 aactttacaa acgtcgagcg gaaatcatcc aatatgcact gtaggtgcat tggcctggaa 4680 ttgcggtgcc gaggtgctat actgatgctt tatagacagg ctcacatgga ggcctctttc 4740 gcgctagatt ttgtttccct gttgctatca aagcaccaac cccgccaggc tgaaacgtct 4800 atgtcccctt tettaaagte ggeegeaeee ettggeteee teaactegga agtegttaat 4860 ccgccgccga gacccgaatt gaccttgnaa gacataaaat cggtggccag aggatggcgg 4920 ctgcagaatt tcaactcgac cgctgacaaa cttctccatg ccggctcgag actcgagact 4980 gaggttaact cggagacgaa gtactggaat gaggtcttag cggtgaagga gaagggctgg 5040 aagatttgtc gattgccgcg agaaagccag gcgcttgggg tacaatatgg attcctagaa 5100 ggtaagacca attectggtg tttgggtgtg atgetgaece caeagetaeg cetattttee 5160 gtgaccgagg gctcgctgcg ctgcgaagga ccgacgatgg aagcttgttc ctggataaag 5220 gcttgatccc tctgaaatcg caaggagtac gtgtccgtgt gagacgaagc gatcgtatcg 5280 tcggatgctc aaaagtctgc cgaccgccgc aagaggccta gtcaaagagc tgagag 5336

<210> 805 <211> 3062

<212> DNA

<213> Aspergillus nidulans

<400> 805

gaaagtgtta gtatgtaaaa aaatagcaga tatggaaaat aaagagtcaa agataagaaa 60
ggaaagtaga ggggatatga aatggataga agggaggcga ttgaatggaa ggggaaagat 120
tccgtagtgt agaccaggga ataggaaaaa cgtgtaaata tctgtttaga gggtgaccat 180
aaagaagaca gtataaataa ataaaattca gaagaaacac agtaatcgaa gatttagatc 240

gttaaaagaa atacggaaaa aagcggaaag gctgtcccct tcttataccc ctatcatccg 300 ggttgttagg tgccagttcg ggcctacccg cataatgggg caccaccgat gccatccagg tcccgcccag cttgacgcaa cgttagaata cccccaccga acggaaaccg gggcaagcag acctccgaat ccgagggaaa gcggcagtgg cgtcaggatt cgtcgaccac ggttcgcttc tgtaggcgat ttccagccgc cgggttggtc gagccatgcg gtgcacggca aaggacgacc 540 cgttcctccc ggtgtcttgg aagcagaata cggcagaagg tcgtcgatgt atgaccgata 600 actgagcgat ccgataggga atcggctggg gtaggatgat gataaaacat aaatctatat 660 tactgacatt ctagggattg cgtccgtctc tggtgctggg ttgctgcttc gattcagcaa agacacaacg ttatgccctg tttattacct taccttggtt tcaattctct gggagcaggt gtcggtttgc ctggtttgca tggtttggaa tttgagttcg gatctggatt tggtgttgac acaacageee ggttttaete gaagageatg atgeatgatt tgagagtgte eggegggege ctctcaccat tacgacttac gatgacatga catgaatacg gctagagggc gttaggacac ctactgggtt ttttgcatag ctacgctttc tttttctttc tcgatatttc gtactttggg 1020 ccatgatttc aacttctcga tgtgtatcta gcgcactcta tttggtacta gtctttccaa 1080 tectgtatet etecegteta catgataege ggtaceaata tecegaceae egegetgeag 1140 acttgctgct actgtcgtcc atcgactgaa gaagcagaag aaccgtcttc gtcaagcctc 1200 agtcatttat cggaaaaccg ttttttggaa atgaacgcc ccgaaccgat ttcctgagca 1260 cctgacctgg cctggcccgt atggactgaa actctaccaa cgcaagggac gagagtcaat 1320 tcaacgcete ccagcetege agtcagggee acceegegta ttgagaaace gtegeteact 1380 caactcgtct gaatgagtac tagacggatg aagagccgga agcgagaagc cagaagagga 1440 agcgaaagca gcaggcgcag aaacagaagc aacctcggcc ccgaccggca ccaaaatcct 1500 ggtacagcca ttggctcgtg aatccgtctt acgaatcgcg ccatgatgaa tatcagctcg 1560 gcctatcttt ctggttcaat ccaggtttcg atcctgagcg gggcgcggga ggctggttaa 1620 cggtgtctcg acgcggagtc cctggcctgg tcggtcactg acgtcagtat gagcgggtac 1680 ttggaaacgc ccgtatatca gggccaggac cagccccacg attttgacgg tttatctttt 1740 ctcgcgtctg tgagtgtcgt gcagatacga gtacggtgca ggtgtacact accctacttc 1800 gtacagtgct gtgaagggtg caggaaaccg caagggactt gagctgcaac caagtcgcag 1860

tccgtttaat acaccatcga atcagcaaaa aaatcagcaa atcaccaaag tcaacaatat 1920 ggtatgtata ctctttttt ttttttgaat ccatggtttg cgacgggcct ccacatgtcg 1980 ttccacgtct gctctgcgaa ccgttggacc cgcggctgaa ccacggttgc ttgaccacgg 2040 ttgctctccc tagtacccat acccttcaat aactgcccat tcaatccaat aactgcttac 2100 tatgtactaa gaccgcgacc acagctaaca tgagaacatc caggccccaa ttccccttcc 2160 gcatccagtc tegeteccet egettatete etetetegte geeteateet catecteate 2220 cacttcacac catctctctc cgcgccaatc gaactctgac acaagctgca actgttctgg 2280 ctctctctcc ggcggggcca ttgctggaat tgttatcggc tcgattgccg gtacgctttt 2340 gctaatttgg ctgtggcgct catgcatgac gaccgaggcg gttcatgagg ccgagaagac 2400 cggcgcgccg ctttataccg caccagccgg gtacccgact aacgaggcga ctgtgcacca 2460 tcgacggcgg agacgcagga gccccgtcta tgcggatgat ccgtattcgc ggcggagtgc 2520 tagtgggagt gtgaggaggc cgaggagggt ctatgttgcg tagatgcaaa gcggactgag 2580 tctctgcctc cattctgtgt gcagcaggct gatggtgaag atgaagggca tttaagtggc 2640 gggtgtgctc agtctaagaa ctgtctgggt tcgcgtcgta taaaggataa cctaaagtag 2700 gacaccgggt tttgtttatg ataacgattc atgcacgatg ttatggctgg ttatgggaag 2760 agagatgtgt ctactaatgc ggtataatga ttgatgattt atgatggaat tggataaata 2820 ctaccttcca tatttttgag tttggaaaga atgaccgtat agtgatggtg agcctgcaag 2880 aagtegeate gtggeatget tggtttetgt gggtgaceae eeggeegeea etggaaegga 2940 gagaagtatc atatcaggta taccaatggt caagtaaagt caggtaataa gcacccaagc 3000 atteceaagt catgacttte teacttetag tgagaegeeg eegagaeaca etaeaagteg 3060 3062 ta

<210> 806 <211> 2492 <212> DNA

<213> Aspergillus nidulans

<400> 806

taaagagcac accagcattc tcagccctgt cggcaatact gataacctcc ccaatcccag 60 ccgcctcctg ctcatcttcc agcgccataa tctcctccct actatcccac cacttctcct 120

ccgccaaatt aaacgcatcc ttgcggagtt cctttatatt cttctccact gccactcccc 180 tctcattcaa cgtctcaagc aagatctgct gccactcctc actcgtgcgg ctaaagaatt cacgtaaagt ctcaaacggg cgcggcagcg gtctgctatc ctgaattgac ggctcggcgt 300 cttgctcttc aatatcgagc tgctccaggt ctcgggttac ggaaggcacg gttacatcgg 360 tggtctcagt gggtgcagcc gaggcagtat caagagacat cgcgtcctct tcttccgcct 480 tgagcagatg ccaattaccc ggctcgttgt agaagatctc cttgactccg tccatcttgc 540 600 ccagatcaat tgagtacatg tcgttgaacg tgaactcgcg gtctcccttc tcgtatgtcc cgccgaagat gaaaagcgtg tcttcctgca ctgcgagctg cgcgttgaaa cgcatatggg 660 gcatctcgaa gcggacaata gccggctttt ccggctgcac gggttcttcg tcctctttag gtaggaactc attatcgtcg tcgttttcgt caacgcgtat ccctttctta gcctccagcg 780 cetteagatt ttgcaatage teetetteag tagettteee etgtteegag atttagetge ctgatttcct tgctggcttt tacccgtgtt cttgggacgt cgcagggtga gagggaaaaa acggtttctg tccgtattcc atgcgaacaa tgtgttgaaa aattcacttt caataccctc 960 ctcactcagc tccacgtcgt ggacaccacc aaacataatc ccgcggccct tgtggtacgc 1020 categtegea ccagecetag cegggttagg egagtttgeg ggettettge ggegeteeca 1080 gcggactgtt ggtggcgtcg atgggggcgc ttcaggtgct ggcggtgtga tccgaaggaa 1140 ccatgtatct tgatgaacca tgggcttcat tgtcatgcgc tgcgggccgc ctttggcaga 1200 cttgccgccg gcccctgcgg tcaccttgac gcgggagtat ccgccgtaca gtactgctcc 1260 ggactcgtga gggaggaacg aggacgagga ccgcgggtcg ggcttttgtg aagcggtcga 1320 taagacgggg ttgtaccatg tgtattttga gcagtcatag atccaaaggt cttggaggta 1380 ttttgtttgc tgtgatgtgt cttggaagcc accaaagagg atgatgtagt tctaatatta 1440 ttagaaatag ggagaatttg tcgattggtg aggaaagtac cttgaaataa gtcattctgt 1500 geoegeteet ggeaggagge cettteeett tggteteaat aegegaeeae tetettgteg 1560 atggatcaag gtgccagaaa tcgttatagt ggtagaaagt cccttgcttc ggcgaagaaa 1620 actegeegee aaagagatat ateceeecag tattacetee aeggeaceaa geatgeeege 1680 teeteggeag egggetatte ggaetggtaa eetegegeea tteecetetg teaatgagat 1740

agacqaacag attattatag aacgttgcca gtgtaccatc gaagtactcc ccaccaaaaa 1800 tgagtagctc attcctatta gacggagaag caagcacagt ggcagacgat cgaggggatg 1860 gaggccctga gacgacctct gtgaccttca gaaacctggc ctgttcctct gcgtattgag 1920 cgagaatagc gtctagatca gcgtcttcag cgtcactgtc tgcatctttg cccttggact 1980 tgtgcttctt ttcttcttg tctgcttct tggattgtt tgccgctaca cgctccttgt 2040 gctcggctga tttcttgtc tttttgccca tggcttaggc ttgtatacta tggagtttgt 2100 tagtgatggg ttcgatctag cagcatcacc cttggaaaca aaggtaaaga gtacctactg 2160 ctatctgact ctgtcttta gattattcaa aaacgtggta taaaacaggt acaatcagga 2220 tcctggcgtg tataatcgtc ggcgggcaa gggaaaaaaa aatgttaatc tcccgctttt 2280 ttggactcttg aatattatt attttcatt gtcctacgac aggatgggt caaacgacaa 2340 ctgttggtgc taaatgacc ctgatcacta ataaacca gattgaatgc agtcagtca 2460 aggcaactgt ttggagagga aacggtcgct ca 2492

<210> 807 <211> 6768 <212> DNA

<213> Aspergillus nidulans

<400> 807

gctgcgaact gacccattt ctgttgtagc tgttgccata acgtttgttt gtgttcaggt 60 gccgctaatt gatctccgct cgcgaccacg ggctccgtcg tcttttcagg gtcgctttcg 120 gggtcgctag cggcaattgg gggagtggag gcgactgcgc cgcttgggag aggtttcgt 180 ttggggactc ctgatgcaaa gccgttcatt gtggatgata tgtggaatct taggatccag 240 acgcatagtg agtccagaga ggcacggacg gcaggtggtg ttaataaagg gacggcgctt 300 gacgccgaac aacttgcagg gatcgcaagg ttactccaag caagagtcta gggctgtctc 360 tgagtccctg actagccgaa ttcgaatcaa taacagctag tcaagtattg tcgattaaca 420 agggcaatta attggcgata acccgtgcag cggcgaatgg cttcgttgag tcgggggctt 480 tagtggtctg ccattaggct ttagccgagt ccagagatct tcctcaacca caataagacc 540 ctcgtacctt ccgtttccac atcctccaaa tgccattcac tcatcgaatg cgaatttgcc 600

tactcatcct caccaatatc cctaggatgt atgtttgcta gcaaccgaag cgaccgattc 660 gategtateg tggggaactt ggetettett ggegetgtge agaacgaece acattateet 720 cacteegeca tetetgettt egteatttte ttegteeaac aggttgeege gattetegea 780 acatacgctg cacttcgacg cgagccatca tcagggctgc gtgctgcatt cgacccaata 840 tegeaaceaa ttaegtteee caegaeggtg gaaacgeaag acgateteet teectatgae 900 ttaggaaccg aggagatatt ggaggactgt gattgatgcg gggaagctct tctaggatac 960 gagagacgtg atggcggacc agtttcctcc acgcgactat gcttgcgaaa atcatggcac 1020 cgatcggaga tctgtcaagt gtccaagcct ggttgacaag gcgaagtcgg tttggaacaa 1080 gaccggcttg gacctgcagt caattatgct gatggtcaag tgagtgtcca acccggatgg 1140 gaagtagggt gctaatggac atcgcagagg cgcaatacct ccaacaatcg gactagcaat 1200 gtaagaacca gctccgttgt gtgacttgga ttcgactgac aggccaaaag ttaccaggcc 1260 gactctatcg cggcgtattt caccacttcc ggatatctga tagctattat atcggtactg 1320 ggattcgcca ttatgccccg cgccaagttc gttcagatga tgctgctcga tatactggct 1380 gtatgcgtcg cagctgctgt gaatgcgttg atgatgtttg cgaccgtcaa agcacgcgag 1440 cagtegacea gtteggatea ateteaaceg agtageteag gettteegee gtacaattee 1500 tctgcttcgg ttaccagcgg cgtcttttta ttcttccaga cttattttgt ccattcgctc 1560 agageceatt accageagtt teaatteece gteattatet acteeattgt ggeeaaegte 1620 accttctcgt ttgcaccgct tctgtctact atgcccgcgg cgctatcgat ggttcgccga 1680 ctgcttgagg ctgcgttatt gggactgggg ctctctactg gagtgtcctt tttcattttc 1740 ccgctctctt gccgagccgt ggtattcaaa caaatggcag gctatatctc tgctttaaga 1800 tetgetetge aageeeatae tgeetatttt gaageattgg agagegagaa egtgtttggg 1860 cgaacagcga cctacgactc aaccgtagag aagatggata aacatggcaa ggtctattcc 1920 ccagaagcaa caacaattcg aaaagccgta cataaaatca cagagctcca tggaaagatg 1980 gccggcgatc taccgttcgc aaaacgtgaa attgcgatag gcgagctcgg tcctgatgac 2040 cttcaatcta tcttccgcca tcttcgccag acgatggtac ccgtagttgg cctcggcttc 2100 attgtcgata tctttgagcg actatcagaa tacaacaaat ggaacgagcc tattgatcca 2160 teetetgtgg tatetggega eeteegegae egtgeggtge atgagtggea tgagattatg 2220

acggctgtcc atgacccgtt tgtctctatg attgaaacaa tagacgaagc gttgcagcat 2280 gttgcggtga ctctaaagct gacaccggct ccaaagaatg tgaacttgga ccccgagacc 2340 gctagcagtc gatcccctgg taacaaaggg tttagtgctt atatggaaag gaagctctct 2400 gatttcaaga tagctaagca gcttgccctg cggacttgga gtgaagagaa aggcattaca 2460 cttccgccag actttttcga gcatcctaca actgcgcatc tggaaacgga ggacataccc 2520 gtggatggct ctgtagatag agaccgcgct cggagacaat tgtttctgtt tctttatgtt 2580 ggtgccctct cactatacca tttacccagt gctaatgtcg attagatgga gcaattactg 2640 gcctccactg gccaggtggt ccttgaattc gtccgatacg ccgatcggaa acgagagagc 2700 gggaagctct cgagaacgag attgattatc cctggtggca aacgtctgcg caagtgggcc 2760 ttgagcattt tcaaaaccgg ggatcctcaa ggagaggacc atttgggcga tgtgaatgcg 2820 aacaatggcg tgcttcagct tggcgaggcg tatacaacta ggaaagaccc agaacattta 2880 ccgccagaaa caacgcttca gaagttagga gataagatta ggcgaattgc agcaatgctc 2940 cgctctccac aatcgtctta tgggttccgt gttgcatgtg ctacaatgac cattgcggtt 3000 gtttatttca ttcgagacac gcaagaattc ttcattagac agcgatttgt ctgggctatc 3060 atcatggtca acctgagcat gtctccgacg tctggccaaa gtctttttgg tttcgccctc 3120 cgtatcgttg ggactatcct agcaatgacg cttagtctgc tttgttggta tattcctgga 3180 aagcagactc ctggtatcct tgttttcttt ttcttgtttg tcgctgcgac attctatata 3240 ccggttaagc agttccgttt ccgaattgca ggagttatta ccgtgatatc tactgcgatg 3300 atcgtgggtt atgagcttca ggctcgcaaa attggcgagc aaaacgtcag cgcaaacggt 3360 cagacgtact atccgatcta tctcctggct ccgtatcggc tcgcggttgt gactggaggc 3420 attgcagttg cttttttctg gacgtttttc ccttacccta tctcggagca ttccgtattg 3480 cgacagaacc tgggatcgag cctatacctt ctcgctaatt actactcaat cattcatgaa 3540 acggtgactg cgcgtatgcg cggcgatgaa ggtgacaatg ccctcaagac accagcgggg 3600 aggeggetgt tgaaggeeeg aaacaaagta ttttcaaaac agatgateat getgageagt 3660 ctccgcacat actctgagtt tctcaaatgg gaagtgccca ttgggggtcg gttccctaaa 3720 caacagtatg atagaattat tacctgcatc gagaagtatg tcttcccagg ccattcatga 3780 aactcacage taaacctagg tteageattg teaactacet cagtettett gggtatgeet 3840

cggattcact taagcagctt gggaacgatg acgaatcgga ctccgcttgg cttaatgatc 3900 tgagaaggtt gattgccagt gctcgaatta ctacgcacca gataacatca gtgctatgtc 3960 ttctctctgc cagccttacg aatcaacaac ctctgcctcc atttttgaaa acacccagac 4020 cgtacagctt ctcgaagcgg cttgaacagc tggacaagga tatcctgagt ctgcgacata 4080 ttgcagagcc tggattcgct acgttttctg ttctgcagat ttccactcgc tgcatcgttg 4140 gtgacgtgga gttacttatg aagtatgtta tcgtccgaga ttgatggtac ccactctaac 4200 ggagttatag ggatgtcaaa agccttgtgg gcgagctgga tttctcattc cacgccttga 4260 gtgcccgtca aagcagtata tcgacagccg atgtgtcgcg ggcaccatcg agagctacag 4320 agcgaaacaa acttgactaa gagtatatac atagctaaga cttctagaca tagagaacca 4380 agcaattgag cctaatttat agttgttctc cattttcttg ttggcaatag gcttttcagt 4440 taccgtgcta cttatgctga tcctttgcag gttagacgaa aaccagcttt ggagccccta 4500 attgcatate tteatgeagg aattateega aaagetgeee tattaegtee attaegtace 4560 cgccaaacct gttccacagc aaaggtgttt gagaggatgc tgttatccgc ggtcgtacgt 4620 ccgtgctcgc ataccagacg cttatagcga cgaatagtat cgctgatgat aaaggcgtgc 4680 tctatcccag ggggatggaa tgcttaacag tcacgcatgg tttaacccta cgatggacga 4740 tegtteggtg tattttgeta eccaectgea ataattteeg accaggetet ggteaceeta 4800 acceacaatg agtgggegea teacegaact eagegeegae tggetegtae tatatgatat 4860 atactgcttc ggcatactgg cgtcgaaact ctgacccaaa catcataacc ggcaagaggc 4920 gtcctccgat gaaataagcc gcttgacagc ttggtggatt tctgccggat gagggcagaa 4980 tctatcgacc tcggtcacgc cgacgacggg ttaaggacac agttgcacga aagtatcagt 5040 gcagaggatt tgggggaaag cgtttacctg gagcgtcctc cattttctga ctcgtcggcc 5100 gattcagaga gcgtcgtctg gcgaccaaga cttagagaat ggcttgtttt gatttgcgtc 5160 teettegtgg caatgetaga tgeatttgae gegacaatgt tggtgeetat tataceggta 5220 tgttgttaga atttggtccc cgatcagtct taacatgcag cctttctttc gcaggtcctg 5280 teagetgtgt tegaacaace getteggace gttetttggg tggacaegte gtacetegee 5340 gccagggcag caagtcagcc aatcttcgcc atgttgtctg aagtttttgg tcaaggacca 5400 atcttgatcg tcgccgtcgt catagccata gccggaacag gagtgtgcag cgggtcgttg 5460

agtgtgactt gccttgttgt aggccgactg gttcagggaa cgggcaatgg ggqtqccatt 5520 gcggtctcgt cgctcctggt gaccgacctt attccatatc cccaacgtgt tcgattttcc 5580 gactacaagt gtcgtgcgtg ggtgcttgga gcaatccttg gaccggtatc tgqaqqqqtc 5640 cttgctcgat acgggaattg gaattggaca ttctatttca gctatatttt ctgtggcctg 5700 agtotgtttg tggctccgtt tgcaatcgac ttgaaggagt gcaagagcat ctccaggcgt 5760 gcggcgcgtg agatggattg ggtaggagct atgttgactg tgttggggat tgggtcactc 5820 ttggttgcat gcagttgggt agggcagcca caaaacggag gggaggactg gcgcattcta 5880 gccaccagtt gcattggtgg gctggcgatg gtggtgctag tgctttatga gagcgtctgg 5940 gtgtcgcggc cgatgttcaa tctcgggata tttagttcca tatccaagat catgctgtat 6000 gttggcagca catttcacgg acttctggtc agtgtaatca ccttttgaat taactggatc 6060 ttgctgacga tgcccttagg tattttggca cttgcagggc ctgtctgtgt atctcttcct 6120 cgtcaaagag ttttccacgc cgtttatggg cgtaagcatc ataaccatca ccgctcctgc 6180 tctcccaatc ctctttctca cggcgaagct aggaatcggt agatatcctt tccggccgcg 6240 ctggattatc cgcgctggtt ggactcttag tcttctcgcc tcaggttgtt ttatcctatt 6300 aaccgccgaa acaccgatgc cggggtgggt attcatcttc cttactaccg gtatcagtca 6360 tgctctactc atctcaggat acaatctatg ttcccaaacc gaatcgccca ttcgcaaacg 6420 agacgaggaa gacggccgac acacggcgcg acggggcaga gctgctagcc ctgcctttgc 6480 cattttgatg tactctatcc ttagggcatg qqqqatqtqt atcqccqttc ctqttqqcqq 6540 gtctattgtc gtgacgcaga tggtgcaaga gcttgatgca agcgggagtg ctgctgagcc 6600 gtcaggctca ttgaccagga aaggtgggat agtcctgacg ctagataaga gacaggagct 6660 gggtcaactg tttctgagca gttttggttt cttgtggcgg tttttcatgg gcgcqtctqc 6720 . tctggggggg ttgtcctcct tgttgatctg ataataggcg tctcaatc 6768

<210> 808 <211> 1184

<212> DNA

<213> Aspergillus nidulans

<223> unsure at all n locations

<400> 808

aaccgtttct gtctccctag atgcagcagc acagtcgaag ctatattcag aaatggagat 60 gatgatctgc gtcaggccaa ccagttcctt atgcaggaat tcggccggcg gccgtatttc agaggaatct atcaagagga taaacaagtt ctggggatcc aagaatcggc cgggcgtagt 180 ggagttccag tacgaccaag ccactcagcg tcactgnata ctatccaaca ttcgaaccct 240 gcactttaac ggagaaagtt caaccaatcc catagctctg cactcgaatc tgcacagctg 300 gaaggcaatt gtcaaggaaa tgagcgttcg aaccttctgt gccccggaca gtgtcatccg taagcacata catgacatcc agaaacttct ggatatgctg ggcgcaccaa tcgccacttt tctcgcattt gaggagctgc agatgcggac tttgatttgg atgaaggagc agcgcgcgcg 480 gagatacett getgaaggtg ggegggetat ttegeegagg aegagetatt eategeaetg 540 aggattette ettgtattaa caegaaaaca tgtaetatta geagatettg tagattattg 600 gcactcctgg ttaccttggc cttttctcat tttcgactga agcagtcgcc ttttcgcctt 660 gaggttccca gatctctctc taatcggttg tagcctcata acgtagacag agatgtcggt 720 gagacttagt ggtagaggaa gacccttgtt ggttgggaca cacgcggtcg acgtcatagg 780 ctgccgggcc gatcgctaaa ggtacgagac aacaactttc tcaggcttca gaatttcgaa 840 ctccattttc tccgagtttc accggcaagt atccctcagt tatgtggtag aaacaataaa 900 tcaagtctcg cattatcttt aagttcgtgg ccgctgcctc ttgatgtcat cccttgcaaa 960 aggtcatctg gtcctcatta ggacagactc cagccaaagc ttcgagctct gctagtaagg 1020 atgagtgtgg tgtttgacta acctgcgtca gccgctgttc tcttcgcttt ccgttgtttg 1080 ttttcaaaac cgctccgaat attaataatg gctggcctct acatacttac ggacagacgt 1140 gcctcctcgc tggcgacgat ccaggcgcct ctcctggatt tctc 1184

<210> 809

<211> 1658

<212> DNA

<213> Aspergillus nidulans

<400> 809

cacaccagaa cggcacgagg gcctttctta ttcgaggact tgaacgcata cccattataa 60
tctcggctcc aagatctcat gtgactatgc ggattcccag ggttagccca tgaactcagg 120
actcacaatt aagtcttcga aacttccagc aatggaatgt tcctctgcgt gtgaatgtta 180

tttcacttct tcatctcgat cttaacctag cctcgtccgc ccgacccctc aattacgggc cattgattaa acaatcgcag caactgctgt ggcccaccga ctcaagagtt ctcgtgttat 300 tgcggcatcg ttggttagaa cgaggcttct agtgccccaa gcggcttgct ccgggctaag 360 ggttcaaagc ttcggacttg caagggcaga aagcggacaa gttagctctg agattgatct 420 cgacttggag gctaaagtgg agtgtttctc gctagggatg ccgtaattta cagggattgg 480 atccgacggc gcctgtgaag tttctactta gtttatcata tccgttgaca atccatcgaa 540 ttcagatata tatgattact ccgttcatcc caatgatatg qtccqactac tcqqqactta 600 cagcagagtc cttgtactga catggcagtg tcatagcacg cgaggcccat ttcttaagct ctcatcatcc cttaacatcg tgacatcaat attagatcca actagaggtc ttctgcttcc 720 gcaggtccag atacttcgcc gcataatcat tcgcgagaac cqagtccccc gtaaqatqca tcactgttgc ctttttcgcc atcatctcac actgacccct caaatcctca atctcctcat actgctcgta cgcagagtcc agatacccca gcgcccgatt catatactcc ttctttgcgg 900 gtccgttatc cttaccctca ctccaaagcc tccctgcaat gcccatgttc gcatccacga 960 gaagtgagta cgcacttgcc gcaagatcac agtcgctcgt ttcaagtacc tgaggcataa 1020 tgctttcaac catcttcgca acagcctcga attcctttag actcaaaagt acaccaccta 1080 gtgcgacgat cgcttcccat agacccggga gcaggcgcga gcgataggca atgcttgcag 1140 ctcgcatggc cagtgagaag ccacgctggg gctggcccat tttctcgaag atgcgggcct 1200 tcaggcagag gagtttgacc tgcggttgga tgtcgaaatt gtcttggtga attgactgag 1260 ctgttttttc gatgagttcg agggcttgtg cgtagtccgc ttggcgaatt aggtgttcga 1320 cggtaatgaa ggagaggagg aaggagaggt cgctgtcagg gaggtcgatt gctcggagtt 1380 gagagagtag ctggcttgct gattctcggt cgtcgctgag gatgggaagc tctactgtta 1440 gaatcgtaac acactgggaa gaaaggagga agaggagaga gcatacttgt atattttgcg 1500 tctgagttga agggccccag agaagaacgc ccagtactga cccgttttca gggattggaa 1560 tegttetaag eteatatetg ceattiggae ggaageeteg tiataaegae eetgetggge 1620 gcgcgcgatt gcgtgatctt tcaaaatccg gtgtcgta 1658

<210> 810

<211> 5032

<212> DNA

<213> Aspergillus nidulans

<400> 810

atgtggtagg tacggaaaga catatgcgga agcgggtgag tacatgaggg atgttgttat 60 gaagaatggt gacaacaatg atgatgaagg ggaagtggtg aagattgcac tccatccatt 120 cgataacgag gcgatctggg aggggaacag tacgcttgtt gatgagttgg tcgagcaggt 180 teceettgtt geaggggatg etgttgaggg agatgggtat ggggatatgg eeetteeagt 240 tgatgcaatc gtgtgtagtg tcggaggagg tgggctattg aatggactcg tcatgggact 300 tgagcggcgg cggagacagc tggcaaaatc ttcatcaaga aagacggcgc aagcaagacc 360 gacgcatctg attgccgttg aaacgcgtgg aacggactct cttgctgcgg cagtagcgaa 420 aggitized gigagicing cqaaqatcac gicqcaqqcq acatcqcicq giqcqatccq 480 ggtttcggaa aggacgctcc agtatgcgct acatccgccg cagggtgtca aagtgcatag 540 600 tacggtgctg tctgatgcag acgcggcaag aggcgtgctg cgtcttgtgg acgaggagcg gatgctggtg gagttggctt gtggagtgtg tgttgaggcg gcagttggcg atgcttgtcg 660 ggctgagaag acgaagaaga ggaagagggg gttggatgaa gggtatggag atgaccgggt gtcggcgggt gagagtgagg gagatttgtc agatggaggg gtggctgagg atcccttgcg 780 gtcgcggttg aaggagctgg tgccggactt gaaaccggag agccgagtag tgatagtggt 840 ttgtggaggg agtaatgtca ctattgatgc ggcggtggaa tggaggacga tgctgaacga 900 aggatggggg gacgagaact aggtaaataa atgggcgttt caaatcttgg gttgattatt ggcgttttca gaacatgata ttcagcaaat atggtaaatt ggatttgggt ctagaggaaa 1020 cataatggat agcttagctt gctcattgat attcacgcag aagctgggac ttcttccgcc 1080 tegattgtcc gaatgegata gttccagtag ttcttccgaa tgggatcgta cttgtccttc 1140 aggaggttga gcatacggac agcctcagcg cggccattct cttcagcgtc agcatacacg 1200 teagetagee acteeacage gtggetacte tteacegaga egteeacaat etgaceetgg 1260 tegteeeget tgtegaegae gaatttetge geaaactegg teeattegga gagtggeega 1320 ctagcagete gtaggatace ecgagegtae gaccatggge tteggttete tggegetega 1380 aggatetggt cetgagegta ceteagetee tegtegacea gatettegte caegaeggea 1440 agteggeeet ttteggeagg egaceegeeg gtgttgacea tgeeageate gggeteatta 1500

ctacgagggc cgaagcgtag catataacgg tgattccagg cggaattgtt cctgacatcc 1560 gagttgagta gggagttcac gtccgcgagc tcgcgagggg aatcccataa ttcaaaatgc 1620 cgcaccagec agtggeggta ggtecataea tgatagtttt ttgagtettg agegaacatt 1680 tccatgagaa agtccatctc ttttggtggg agactaggga agtgctctcg tgaggacatg 1740 ataacctggc gatgatgcct ggcggggtta gtggtcacag tacctcaccc ggctggagag 1800 ctgcctacca gatttgataa ttcttcaaat acctcaagga gacgccgttc agccactcca 1860 gctcctcgag gagatctttg ttcaaagcaa agacgatctt ggcacgatat atcctgtcgg 1920 gtttagctgc gtccagatat cttcaaggat cacttaccag actgtatagt gggctggatt 1980 catggagata atgtcttctg tgagtttcag ggctctgtca gacatttcat tggcggccat 2040 aaccgcacga agatatgaag ttgcttcgag atattcctcg ctgtaggcga tggtggccag 2100 cggcatcgcg cctgactcgg agccatcatt gagcggaatg ggatcgattg acgcccactc 2160 agaatcagac gcgtattttc ccatggtgaa atttattcca gattacgttg tgattgtaag 2220 ggctgatgag gagaacaagc gatggaagtt gtggtgatca atttcgtgaa gttgaggtgg 2280 ggatggcggc ctaaggcaga aacaacaaga acaatataaa cgacgcaaca atcgagcata 2340 gctggacaag aattgacaaa gttcatattg atatggctag aaattgtgat ttgattcagg 2400 ataggcgtat tctgtattca tacggctact gaaggtgagg tctggggagg cttgggatcc 2460 cgtgaccccc gcctgccttg aataacctcg attccagcct aataatgata aaccagcctc 2520 attgtctcgc cgaatccgag tctcgaccct gaccgatcaa tcccggcgga ttatcaggtc 2580 aagttcgacg gcactgatcg tgattcgacc tcagccttat ctgccaatgc aagttgtcga 2640 ccccgcaatg tgatagggat cgcttcccga cagttcgctc ctggcatcgg agcccaagct 2700 tgaagatcac ctctctccaa tttctcctct ttctttgcct ctctgtgcct tgtaaagatg 2760 cgcgtttctc ctttcttcat ctagattccc tatttggcta catttttcag tgataaagat 2820 gcgtcgcgtc aagaagtccc gcaacggttg tgcgcggtgt aagagcaagc gagttcgtcc 2880 ttcaacttcc tagactttag tttgagacta acccattctc attaggtgaa atgtggggaa 2940 gagaagcett actgeageeg etgegttegt etgggegtaa ggtgteetgg ataegteaaa 3000 acgctgcgct gggtttctaa tcaggcatct gctggagatg gtggcctgga gccagccacg 3060 gataatgacc aggtccaatt tgtacccgaa tttctatctc ctagaaaggc agatcagttg 3120

ccccaatctc agccgcaaaa ccactcagag aactgtctcg acttgcaccg gtctcccctg 3180 ccctcagatg actacaagct tcccgactta gatggcctcg ttggcgacga tgccaacgat 3240 atagatgacc tetgggattt acaggageet ggatetttae cagagetgae egatetatgt 3300 cctacctcgc ccaattcagc ggtatctgct ggagaccagg cagctaatgc ctcggccatg 3360 gaatttgeet egecageaag tttgggeteg gaeeettggg etttettete gttageegee 3420 cctgcgctcc agaaccagcc ccgagacttc ccaggcttcg acccttcgaa cattgtccgt 3480 cattaccece egeogtetgg egtgeettet eggeoggece egegggatet caegteaate 3540 ccgcagccgt tgaacaatcc gtcatggact ctaattgagt attatttcaa agaggtcgct 3600 gecetattet etagetatga eagteagatg aaccetttee gttetaeegt etetegtett 3660 tggggateet eettageeat gtgtegeaca atgeagagea tggetgeege taeeettgtt 3720 aacgacttcc cgcaattcgg tectatgggg aagaagetge gcaacgagge cattgagata 3780 atcagcaaag agacgaccat ggacgacaaa tccctgcttg ctctgcttat gctcggacaa 3840 accgccagct ggcatgaccc gaaagatctc ggcattcctt acttcaacca tctacgacga 3900 catttggata atgctgccct ggccaaggca gcgaacccaa cgaaccgcgg taacaactac 3960 cagttetteg aggaagetet agtgtattgg gagatgetee tttetttegt egetgaegae 4020 geggeegtee taccagegee taaaacaaat teeageacag eegatteeet egtettgeag 4080 cgcgtacccc atccctggac aggcatcgcg cgcgacaccc agtttactgt ccaggaggct 4140 ggccgacttg tgagagcaga gcgcaaacgg atccgaactc gaaggttcac atgtcaagtc 4200 gacatcgtca acgctcaggt agctctcgaa aaagcccgag aactcgaaga acggctccta 4260 tecetegete ateceacaga ageggaaatt gteagteeag gggacgaega aaceeetgte 4320 tggcatctcc ttaccatggc cgaagtttac cgctgtacag gcctgctaca actctaccgt 4380 gcattccccg atctcctgca gcggcgactt cccgttcaac agcaacacca ccattcacct 4440 acacagcaat cccaccccac aacttcagca acacgatacc cattccaccc ctggctcaac 4500 gaaacctgca cacaaccatc gcctagccca cagccacccc cagaccaatc ctcgcctacc 4560 tactacgact cctggctcac cgaatttgcc ctgacaactc tctcccgcct aaaatccata 4620 cctctcgaat cccgtacccg ctgcttacag cccctcctcc ttgtcgcctc cagcagcgag 4680 ctccgtctcc ctccatcttc ctccgaccct ctcgctctct cagccaacgg gaatggcccc 4740

tgcgtttcct cgcatgcct cgacgtctca aggacaagga ggtttattct tgggcgcctc 4800 acgtcacttc agtatgtct gccgccgaaa ccgattactg tttgtcttga cctggttaat 4860 gaggtctggc ggcggatgga tgcgggcgat aaagatgtct attggatgga tgttatgatc 4920 gagaaggggt gggaaacaac gatggtgtag gcggggagga gctaatgatg caggatactg 4980 ggtctgcaat tcggtggttt gctagcaggc agaagtggcg gtttggctcg gg 5032

- <210> 811 <211> 1739
- <212> DNA
- <213> Aspergillus nidulans
- <400> 811

60 cgagcctctc cactttgacc ggcccgataa ggtgactaaa cttttaatta aaaaggccct tgtcggcaag gtaggtgggg ggggtcaatg gaccggtcac tttgagaggc cttggccacg 120 ctgagcctgg tctaccgtct tgtacacatc ttcgacgtcg ctctgggaat tgtggttaga 180 gggagcatcg tgcactgaga catgcggggt atattctttc ttgggctctg tatatcccca ataaccettt cgctcatatt tctacacgga ctgctctcta ctttgtggac gcctttcatg atacccccaa ttaatcaatt atgaacagca gtacaaggga aaatcaacta cattagtccg 360 atgatetttt acctaacett cecacacace cacacacaaa tggtcaettt taactgeeta 420 catecegtea getactaege tegeaacttg caacgaegtg etcaectgge tegagetega 480 tctgctccat gaacgcagca aggcgacgga ttgaaggttc cacagaagac tcgcacgccc tcaatgtcgc aacgcccgtc ctatgtggct ggctatcctt tgtgagagat tgcaaccctt 600 tragcagete cageagette atggaatttt teccaaggag aateegtace agaacegeeg 660 tctcgtcgtc gtcaagatcc atttgcccga gcttcatctt gcttcttatg caaaggaatt 720 gaggcagtga tgagtcgaac aaggcgtcct tccgcgtaac attgtactcc aagcaggctg 780 cctcgaacaa agcgagcgac tggtcggtga gggccggaag cgtcatgaga gtcgatccgg 840 ggtttgctcg gcattctttg cacttcagca tcgcttgacc ctgactatgt atacggtcaa 900 cgagaccgag gatcgtctcg aactcaacga cagtgggcac acttcggagt tcgttcataa tttgcaaagc gcttatcgaa cactggcagg tagcctctga ctccatcgaa gcaaggatga 1020 ggtggtaaat tatgcggtcg attgacagac aggtgttgcc tatttctgct gtgttgatgt 1080

tggggtacgt cggcattgtt ggcccctgat tcatgtgctc tgcccctgaa caagcgttta 1140 ggtaggcctg atgacaaggg agagactatt atagatggca gtggtgacct ccaaatgatg 1200 gttcctcttc acatgcgtga tgttgcttgg tgttgacgga taacgaatac aacctcgggt 1260 tcgcgaggga gcgtcattca tcagcctcac ggttttatca tatcagggtg taagccctgt 1320 tggtccgtcc ttccacgcag gccaaatcac tgtggcacca cacacttcct ccgacctgcc 1380 gaaagttgca cagataacta tagcctggtt atggttacca catcagtcac ctgggctcag 1440 ttgggcgctg accgtcatag gtacctaaca atgaggcagt tcagccctta tgggagagct 1500 tcggctacga aattctacac atgaagatgg gagggccaca gtgcacttaa ccaggatggt 1560 aagttgtctt atgagtctcg aaagcaaaag aaattatgtc aaggcctagt caacgcatcc 1620 aactttacca tgatccgtcg cagcctttgg tacgtctct tcatcagtag cactttcccc 1680 ctcgaaggtg tcaggaactc gtgcgtgtaa gcaaggatct gccggactgt tctatgcaa 1739

<210> 812 <211> 3652 <212> DNA

<213> Aspergillus nidulans

<400> 812

tgtttttgaa gttccaggct attgctgacc aagtcaccca cttaggctgt cttattgtac 60 gcgtggtcga tcataaatcg gtctccgcac aaactaggaa gtccaccgca tcctctcga 120 acgacaacaa tacacccttt tccatccata actataatga gcacattact ccgtcggcat 180 atgtcccgta tccgaaacag aatcagttgg cgttggaaaa atcatccgag attgaaacag 240 cagcagaaca gtcagaaacg aaggatgacg gtgaatcatc aaaaagacaaa tcccagaatg 300 tcgagataac ttcaaataaa ccgacaaacc cgaaacctcg cgtcttcaca actgtccttc 360 atccaacccc tcgctcatta caggcggagt tgactctgct tgcgactacc cccgatccaa 420 gagccgctaa acaagcagcg cccgcgtccg gtacagtacc gccgtcgcct ggtgcatcta 480 ctcaacaaga acggggtcat tccgcaaaac ggcagaaaat gctcgttgaa ccccatgagc 540 ttctggagtg cgaatcgaag ttgaccaggg cacttgcgcc cccattgttc ttggatccgg 600 tcaacagtct ggaggaagtg cacagtctct tgaaatacat ggagagtccg cttcaccgc 660 atcctcccc ttcacccaag cgtaggaaac gcacagttgc ggagttggca gctgacgaag 720

cactggcggc tgaagaagaa aggtttatgc taattatgga cgaaaggctg gaacctacca 780 cttccggagc tgcaggaggg ccgaaatctg cggctgtgga tgacactggg ggtgcagtcc 840 cattcgagcc tcgcttttct cgatttaaga cacttgagaa tatcaggatc caacatgaag 900 aaaaaataag gcgtgagaac gagacgaaga taaaacaaga aatgatcaaa aggcaacaac 960 aagagcaaga gagggagagg cgtcggatcg cggagcagcg ccaggcggaa gaacaggcca 1020 aagaagagaa ccgaagacag catctcgccg cacagcaggc ccaggcacag cttgcagcgc 1080 agcagcagca aaaccggcac gtcatggcac aagctaacgg cgttagccaa ggacctcaat 1140 cctcgccagt ggtacgcaac cagactcctc tcaacacttc atctccgctc gtcggcaatg 1200 cgatggcaac gcaggctagc gtgcctatgg cgatgacagc ttccatgcag ggtgctggta 1260 gcccacagag acctccctct gctttgcagc acgcccatcc caacatgatg agccacccaa 1320 tggggccgtc taggagccag caaggacaaa gcagacatat tcgccacaaa tgacgcaggg 1380 aacaccagcc atgtcccaag cgactccaat aatgcgcaat gtaacaccca ctcagcgtat 1440 gagccatgct agtccaccac gctcctctat ggcccccacg cctgttatga atcaggctgt 1500 gatggccaca ccgcagatgg gaagtcaatc cttcaatcac cagcagcagc aattccttat 1560 gcaaaggcag caactcctcg cacagcaagg acagcatttg aaccacagtc agctcactcc 1620 gcaacagttc gctcagttac aggcaaatat gcttgcgcag aataacatcc agaaccagca 1680 gcagcagcag atgatgcagc agcagcagça gcaacaacaa caacaacaac aacagcaaca 1740 acaaaatcac cagaatcaac aacagaagtt tgccaatccc cagacatacc aggctcagat 1800 gatgcgcgcg caactcatgc agatgcagct cgcccaacag cagcagcaac aaaggcaaca 1860 gcaatcacaa cagcagcaac aagcgcagcc gcaaggccag caacagccac agcatcaaca 1920 aggacaaatg etteaaaaca geeeteaget caaegeeeag caacageaga tqttqatgge 1980 ageggeacaa getaaeggeg gecaaeteee geaaaacatg cagggeatgg gtatgeagee 2040 gcgaatgagt actccagcgc ggtacaacca gctctatcag cagcggcttt tgagactacg 2100 gcaagacatg gctacgcgtc tgatgccaca gtacggacca cccacgcaat atccgccaca 2160 ggttgcgcag gagtacagtg ttggccttga aaacgctgct aagggcttcg tgcaaqacct 2220 cattegeagg gagegtgteg agtttgetge tgeteaacag egacaagece aggetgetge 2280 ccacgcccag gcagtgcagc aacagcagca caacatgatg cagaatggaa tgggcaagta 2340

aggatttatt tgacgttgac gactaatggc ttggaggcag cagtttcttt atttttcta 2400 ctccccctt tttgttccat tcatacctat atccctccga caccttcccc tcctcgacct 2460 accacctcct atgagacctg gaggetttca gggtctcccc accgcaccct tcacctacct 2520 cccaccacac ccttcaccta cctttcgcat tctttgattg ccactgcaag aataatcttc 2580 tettttgett attecatttg ggageaatgt ataggacaaa ecagggaete gagataaaae 2640 aggggcggcc ggcgtttacg tttatgatct tggttcacat gagtcacttt tttttccttt 2700 gcttttattt taaccttcta tgacttgatt tttctctttc tttcttcttg tttaagctac 2760 tttgggcact tatatcattg ggacaggctg ttgtttttat ctttccgagc ttctttttt 2820 gtttcgatgt tgttctttgc gcttggaagg agcaagcagg aaaccactca gacttgatac 2880 caatttttat ataactaggg gctcctcttt acttgatttt agcagatcag acaggagaat 2940 tcagacggtt gttcataagt actctcgtgg ttggcagcta gcgaggtgga tatcttctga 3000 ttttcggatt ggcttgacct tcgcatactt agcaaactct ttccaaatgc acttctttag 3060 tagggaatat tgcttgcata aaaggtttct acgtctgcct gaggacttga gccatttcta 3120 cctgctagaa ggaggtctcg cttctccctc ttcgcctgca aggtacttgc tttacctgtt 3180 tctctgtgct tataacacgt tctagctcct actaaacgca agctcagaaa ctccaagaac 3240 agatctaaca atagttgccc ctaacccggt aaaattatgc tcgaagttct gcaaaqaqqq 3300 acacteteta categetetg aegtatette etgeteagaa agaagataae aageeetget 3360 gaacaacaga agttatgaaa atgggtgttc tataactatg gagtctagac acagacacct 3420 caaatgactg gcactttaag cagacattct taactcatgt ccccgccgac gtttcttgtt 3480 tttcactaac atgitttata acigicitic tialcittit cittactacg tittaatiit 3540 ttctaccttc tcacttcatc tcatcccttt atacctttcc ctattattac tttcattaat 3600 tctttcacat ctattttaaa tctcctatac cttatcatac catctcctta tc 3652

agatgttaaa agattggcaa ctaccatctt aagctaacca accttcctgg cttcgcaaat

<210> 813

<211> 3054

<212> DNA

<213> Aspergillus nidulans

<223> unsure at all n locations

<400> 813

teggecacag teggeceatt eteceteeta etteteaget caaagacaet etgataceae 120 gacaatcgac tgccgaagag cagataagcg ttggaattct catttttggt ctatatttat ttggcctttt gaatcttttt ccattatctg cgtgcattac actcatttat acctcggtct 240 300 gacgattttt ctgccctgcc aaatcttttt tacgcgacgc tatgagcaca aaacaaccaa ctggtgacgc ctgggatgat gactgggaat cgcaagccga cgttcgttct tcctcactgc tgcaaggcac tttcaccctc ttgcctcacg actgcgcgtc taacttgaat ttcgatccag 420 agactageeg etgaaceeae eeegeeteea eeggaaaaga aagtgtegte caaagtgace 480 aaggcccaac gccgagctca gcagctggag ttcaaccgcc aactgtgggc cgaagcgtat 540 gttttgctat ttcatatcat actgcgttta gtctgacaag tatctcttac accagcgaat 600 ctccgcaaac attccacttc tacgaaacca cttcggatgt gcccctcaaa caagacttta 660 aacccactgt caccgtgctc agtcgcaatc ctcagatcgt cgccagacaa tcgtcggccg 720 ccggggctgc ggccggtatt gcgcaaatgg atctgaatgc cgatgagtcg gatgaggaaa 780 agccgccgga gcctacccca gaagaacgcc aggcaatggc gctgagaaac cgcgaggaga agcagegeaa ataegaagaa gtgegegaaa ggetgtttgg taeceeatee gegeegaett 900 ctggggcatc ctctccacga agtgcgactc caccgagaca agaaggccga ggaaaaggta 960 gaactegagg aaacgggagg gacaataaca ategagaceg gagagateag tetgeegegt 1020 caggcaagtc gaagcaactc tacgacccgg cttctccatc caggcccaat tcgtcctatg 1080 gtagaaaaga ctggcagagt ggtgacaaaa atcacgccga ccaacttcag tccccccgtc 1140 aaccaatccg caaccctcgc ggaccggatg gtagcggaag gggtggcttt agggcacacc 1200 gaggagcgaa aacaccctag actacgcgta atgtattgct acattttacg cattgtgcgc 1260 tcaaatctcg actatcggct gtttcgtgaa attccacagc ttcactaatc tgagctgacg 1320 caattacttg ctatgagaac gaaacgtggc tatggcaatc ctcttccgga attgatcgca 1380 ttcgcaagtt gggaagtatt gggacgatta tctgctgggc gtcagcttga tcgcaagtca 1440 aactaaggac actcaccggc atagcgctca tagctgtcaa gataaagatc cggcaagctc 1500 gtcgtcgcct tgacgctatc attggcctcg atagcgttca cccaagcgct ccatcgagtt 1560 cctggttccg ggtccggcca accacggtat ggtttcaaaa cgcggttcaa gcggattatc 1620 cagggcgcaa cttggacatc cacaaaagag agatccggtc caagaaagaa cggtccttcg 1680

gggtcggcga cttctattaa cgtgttgaat gagctatgga gttcatgtgc atgttcaatc 1740 tgcttctgct gatcttgctc ttggagcacg cgatagaagc tagggacaat gtgacggttg 1800 acctgcattt gttagaaacg tcgagcagga tacgaaggtt gtgtcactca caaagtcagt 1860 ccacageega cagtgegete teagettege ateaceegga ggaaggagag gagggeeaac 1920 ctctaaatcc tcaagctgcc gctcatgtta gtcttgaccc agaacaaggg agggctggga 1980 ggtctcacat attcgagcaa cacagagctc tcatacgacc cccattcacc atgccgcaat 2040 gctggaacca ggccccttgg gttcacatcg agcaatgatt gaggcttttt atatgggtca 2100 acctcaatat actggtaagg aaggcctttg agctccaggg caatccagac acgctgcacg 2160 aaagggctag actgagttag gatactgata ttgtgtactc tgagaagcta tggataaccg 2220 ggattgactc accagaagca actcccgtac aacttcaaat ccgattcttt ggagtgattc 2280 gctaccgtct cagccgctgc gccggtggct tgagtgtggt aacttttcgg ggcggacatt 2340 gtcctggtct tgtacgctct attagaatat atatgagaaa gagtcaatga cagttggtgt 2400 gtcgtgatgt ccagaaataa aaaagtcgac gcaagaaaag ctcggaagaa aagcggggaa 2460 gagcgtggca ggtgtggcat gtccctgtcg ccgcgtgacg taacccgtca cagacaaatc 2520 atacagaagg caggagctct tgaacggtaa taccccgtaa agacagacag aatagaacga 2580 gggaacaaac tcacagtcac cgacaatgct tttttcctct cccttgcctc tttttagcaga 2640 aatcgttcac gctgttcttc ttcactcgat cggtttctcg agcgtatgac ggtgcccttc 2700 gcttacccaa cggttttcaa tcggttcggt ccaatcaccg ctgaatggga aaaccgtgcc 2760 actgctctgg ggccttttgg aaggcgggtg gcggaggccc aaacgttggt cgtctgcttc 2820 atttgggtgg agttccccc ccctgagccg ggcaaactcc ctcccgcgag agggactgag 2880 agggttcacc cggggctccc cgttaatggg gcacccccc tagaaaaagg agaatttttt 2940 gtgtataact gcaccacacg gcgggggcac cccctggggg tattttttt gttgacccc 3000 cncccccct tttttttt ttattttaa cgtcccacct aaaacaaaaa gaaa 3054

<210> 814 <211> 7270 <212> DNA <213> Aspergillus nidulans

814

<400>

aacatgagat tttttaccta ttctgcggct cggggccctg gagtttaata ccacccgcat attecateca ttetgeecea tegaetaace ttggeeacag cateeteett geetaetgae tgactggtgt tgaaaagatt cggctctctg tgccgcttgc cgttttttta tctacttatc 180 accatgctaa ggtgtggatg caacaatgcg gcgcacatgt ggtgggacag tcgaagttcg 240 300 ctggatctgg atttcaacag gggttcgatc tcgtgatcgg caccttgctt gatagattga 360 tatctagget ggageggttt teactagega etgggtttgt tetagaatge caacaatete gatcaccaga tegatatega egeatteett agattategt gagtetaagg aatgettgaa 420 480 tactacctac aaaggeggaa gtetagaetg ggaggeatat cagatetaeg tgeeetgeat gtgtttgcat ggaggcttgt acgagtcatt tttgctctct cacagattgc attgcctttc tttgtcttgt atagccagtt gtacagagtt tcataaatga ttgcacaatt attatgcaca 600 tccgcgctca acaaaatgca agaaaggatg ttattagcac gtacatagag cgacgaagta 660 aaagtetttg ccageeeca agaeeeaaeg agtagtagag gtatttgtga egeataatat 720 caccgtctac tcactgttta agatagcgcc gtcatagtct ccgtaacttg cataatcccc gtagttccca tactctccat agctaccata gtcactcggg acagtgggtg atggggtggg 840 actggtcgta gcggaagcag tagggctggc tgaaggcgat actggaacgc tcgagctggg 900 gategggaca acagtetgge gettgaegtt ggegttgaga ttettgetat ecataatett cgagttggcg tcggtttgtt cagaatccat gtccgcgccc ataccgagtg tccagtccgg 1020 gccttctctt tcatgtttcc gtcggggaga tcatccttgc agcgtcggta ttcggttgag 1080 tgggagctgt atccaccatg ccggtctcaa gtgaccagtc ggatactttt tcgttttcgt 1140 gggtgctggg ccccatcatc gccgcatcgt gattgcggtc tctgcgcagg tcggcagagt 1200 geteataggt attgggeatg etgaaegtee atteeggggt gaettteeea gaeteegagg 1260 cgccatctcc catcggtcga cagagaacca ggcccatctg cgccgtcagg gccaaaagtc 1320 cgacagggat gaggtgcatg gctgacgagt ctagactgcg gggtggcgtg gagtgagaga 1380 gttttggtgg cgtctccttg aacaagaaag ctgggttggc agttgaaaag aaggaacagg 1440 ggcgagttgg ccagtcttgg gggccctagg atgtcagctg tatttatgct ctaagtgccg 1500 acgatctgat agatgtcaga acaagatcat cgcagttgct tccgtcttta cgcgtaagcc 1560 eccaatttte tttteeteee eegegegtat eagacegggt gaggagtgag gaagggtgtt 1620

tgttggtgca tcatcccatc ttctggcagt agagtgtttg attgaaggcg cagggtgcgg 1680 atgeggtgtt accaegaece ttacaeagag accaattgga taaaegaggt eteggaegtt 1740 tigicigggt teceetiget ettiegiet titatgitga aggggticaa igggggieet 1800 gcattgtacc ctctctcgtc tctggatctt caaggctcct tgcttggttt ccaaggtacc 1860 cttgcacacc gtcccataca ttacatccag gcctgtagaa caactccact ccaatttcgt 1920 ggaatcattt acaacctttt cctactccgc agttgaagga gactgtcggt acgcgatcgc 1980 tgtcatacgg tcaccgttaa cagccgacgg gctggacacc cgcatagcat cttcgtttcc 2040 attegeecea tgetgttgaa eattgaaaaa tgeegaggtt aeetttggga tateegeeaa 2100 ttctgctatt ggctggaaac ggtatcattt gattgctata ctacagatag cacgagacag 2160 acagtgaaca aacactgtat ttgcggatcg ggagcctttc tcccccggcc ccttccttcg 2220 tcatgcggag tccagattct agatcatcct tggaacgaga atgctccttc ttgtatctta 2280 gaagagette teagatgaae tatetaeege ttatggetet teetetegae atgatgegte 2340 tggcaggtaa aggttcggaa gacagaacca agagccatga caggctcctt gacgacagcg 2400 aagctgtata cccatggagc gggcaaagca acaaagcagc gcaatactca gggagtagcc 2460 ttggttggac gatagtgttg ttcatcatcg ccacggcact gtcttgcatg atcggtattt 2520 ttatcggata tcagcgcgat aatctggatg atgtttgctc gcggcacacc tctaattact 2580 gcatgctatc ttctctgctt tgcagaatct gtcactaatg caagctgtca gcaccggtca 2640 teacgaacgt tectateaaa taccacegee agegatttaa eggeteetti tttaaagaga 2700 acgtetateg ceagaatgeg gggeeagagg tegatgegge ttggggaggeg ttgggtgega 2760 attgtacgtt ggtggttggc tgttgcgttc tgatcctgag tgagttctgt tcagttcctt 2820 ctgacccgtg atgcatgcag ataggcctat ccgcgtctca gttgaggaag cagctgggtc 2880 cggaatcgcg ctagatcatg tccagatcag cgaagcccac ggtggtgggt atccggcaaa 2940 tgtcgagggg cttcatcatt tgcattgctt ggtgagtata tcttatcggt caacccagga 3000 aggccaaaga catcagtagc gagtgaggcg agagggagca aaaaattgct gacgctgact 3060 gcacagaatc tactccgcca atccctctac tataactatg aatactaccg caaaaaggga 3120 gacggtgcat tccgaaacga tgattttatc gtccggaaac atgtttgtat gtctccctcg 3180 tectgetgga cacatgeact etaacaceta ceageacatt geettgatat teteegeeaa 3240

cagetaatgt geacgattga tgteggegte etagggeagg tetggateca teeggateat 3300 cctagtccct tcgttgactt caatacggaa cacgtttgtc ggaattttga ggacattcgg 3360 gagtgggcac agagaaatca gttgcctttg cctgcgcatg gacatggggc tgatggtgca 3420 caggctgact ttttggtccc accacgaaaa gataaggttt tgagcgaaat tccctgaaaa 3480 aagggtgaga agagtctggg atttatgtac aagacgatat cagtaaataa agtacatgta 3540 tggtgaatgt ctagagcaga tcgagggcat aggaacgctg tgatgataca actgagcaat 3600 aagccgtttc acgatgttaa tagtaaatag ttctctcaac atgtcctcat tagcaattaa 3660 gggacttcaa ggacaaggta aaggacggat agagacttca aaggatacaa tagcttgcaa 3720 ctcagcgtaa aacatatcgc cctcagcagt ttgaattgga taaatgcagc tgaaaatgga 3780 ttcccaatac actgtgagct tcctgtttgt atgacaagga cacagcacat gcaatatatg 3840 tagactagaa agatagagtg aatagtatcc ttatatgacg agcgggctgt ctaagaactc 3900 cetgatecee caacgaattg aeggegetga ttteaaatet teetttteee tteeeettte 3960 gagggccatc aatcattggt cagtcattaa atgtcaaatt gtgctcctcc ggaggacggg 4020 tttccagtaa aggagagacc aggtcgaata gccggcgacg ttcaaccatg cgaaaggcac 4080 aatcgtcgct ccaccctctt ataataaacc agcttcatcg accacacacg cactgtaccg 4140 tegtettttg gtecaagace ttatteggag agteattatt ggatgetgta cagaagecaa 4200 gaaagatcca gttgtcttcg tccacatctg gaatgaaaat gctttgtgaa ttggcaccag 4260 aagacaaagg cttcgagctt ctcacgcggc tttacctagg tgaaagacgc cttattaccg 4320 tgtgtaagct ctggcattca ctcttaccct aagatgagtc tgctttccag tcgcatgctc 4380 gtaagttgta tetgtgaaag acatetgage etgateateg gtageeggag acagaceaaa 4500 taatgaacct caatactgag attectteeg tgtttetete atetagtaca ggtateeett 4560 ctcgatcaat tcgtacacca agaaacacat ggcggtgtcc cgtcctaatt gaactcggct 4620 tcaaattcat ccatacttag atgtactact cccgtaagcc tccagcctcg acgggggatc 4680 cgccacgcaa tacctataga tgggatgttc taggcctacg agttggaagg tcttactctg 4740 agcgatttgt gcagcaagcg cttcacagaa ggacaacaga aaggcatttc agatatatgc 4800 ctgtatecta teacaacgea ttecaaggee gtgetgttet geagacaeag eecaaattte 4860

agttatgggt ggttctatát agtgaatgac tgggtgaata ccctcccttt gtgagcacgt 4920 gattaggtet egatteagae ggtagateaa eeggaettat atateateaa eaacaaggea 4980 gtattgcaat atttgctcca agtggtaccc attctaaact gctttaacgg cgcatagcat 5040 ttgtttegee gteggtgeta gegaatatgt tgaceaeteg aateageaee geagttttae 5100 ttcatcgcct cagaagatgg aacgagttaa tgccagagat gaggtcatca aagccgctgg 5160 attetgattg tacccageat tegagtgata ttgatteett atecaaegeg agaaccaeca 5220 agactaccaa gaagcctttc aatctagaac aatacgactc catcgaagct cggacaaatc 5280 gcgcaaatat atcacaaagg ccaaccgaac tgtctcgaca gcgtgccgac aaagaggccc 5340 aatgtggaca tcaaacatat gacgctgtta acactcgtgt ggtatacaat gccagctcta 5400 aaccttgtag cgatggacaa agcccagtac cgtttcctgg aactggctct gacagacaac 5460 ggaataacca aagggtcgag ttaggtgtcc atgtactcga cttaacatat acggagcaaa 5520 gcactttggg actaaacaga aaatcagtca agacgtcgag cccgcttttc aaatttatca 5580 gcttcatcgc atcgcgacag ttcgatcaat atcgtcaata catattcgat cagcacattc 5640 tcaagtcgac tggttcgcta actttcctct ctagaaaatt aatgggcttg ctgttccgga 5700 acgagatege aggtagagge geateaagee tgtacattge acceetegag tgetegaget 5760 acagtettgg ggacgacgca gcctcgccga agccagtcac ccggaaaccc acacccgctg 5820 cgccaaccgc aagttcgcca atagttacca gcttctccag agaaacagtc agcaataagc 5880 cttccaatga cgccagaagc tgggaaacaa ccacctccca agcgacaccg acacccaagc 5940 cctccaatgc cggctacaag caaatacaat acaaaatcgt tgggtaccaa ggagatgggc 6000 tggaagcgcc aatcgtatca actcgaccag caggacgccc accctctaac accatttacc 6060 agatctacgt cgggattgcg gatgagaccg aggaggaaag cgagcactac gcggtggtcg 6120 tgcggacccc gcctcacttc gcagacccca tgggcgactg cgcctggtac cactgcatag 6180 gatgggggat cgaggaaacg aaccactacc gtcgagttgt ggatgagccg caacctttca 6240 aatcgtccta cctcaagcgc cggatcggag tgggcataat gaccgaggcg cagcggcagg 6300 atttccgccg tgccttccgg cagacgcccc ctcagtcaag tgaattcttt tgtatacatt 6360 tcatgcggaa gctggttaag actggaatca tacaacccta ccagatccag cagattgagt 6420 ccgaggttgg tgagcctcct gcggagcttg agtgggatcc tgactactgt gattcgccgg 6480

attttgggcc tgagactttg gactatgagg gaaatattcc aattttgag atggaggata 6540

tcgatagagt ttaattcttg gtttgttctg ttattgtcgt ttgatgcgtt gggttggctt 6600

aattatgttg taacggctaa agggtagggc tggcttgata atctggtctg gagttagggc 6660

tgtggaggta cccgaggcct acagaaacat catccacgcg gcctggtaca aagaacatt 6720

agaaatcgat aaatcattac ttgattacag tgtcaaggca gacgctgtta aagacgtgtt 6780

caagtgtagc ttataagggc aaaatgttga ctgctgccgc ccaagatcaa accatgaccc 6840

tacagcaaaa cgccctcaga ggtcggtcgt ccgaactcgt catgtcaacg catcacattc 6900

actaaagctc atagaggcta cgtattcacc caatgaaaat gcctgataat cctctaatcg 6960

gcacttcaac cgattcctca agtgtgtacc cgacgagcag cgcgtcgttc acctacaaca 7020

tgaaaccgcc tcatctccc acctcgtgtg atcctctagg tcgttctcgt ccatctcacg 7080

caacattccc attctagctc tagttctatc ggtacgatgg ggaaggcaat gaccatgtcc 7140

atcctcgagt tcatcgaccg cttgaacgta atgtaaggaa tatgtttcgg catgactata 7200

cctttctcat 7260

<210> 815 <211> 2745 <212> DNA

<213> Aspergillus nidulans

<400> 815

ggcctgtcaa gcagagccga gagttcaaga gcctcgcgga tcgtagcagt tgcgtcgtgc 60
aagtcttttc tgttcacaaa aaccagtgcc ccgctgaaaa tcagtgctga gagggcggcc 120
gtccacgaac atatcgcctg aaattacgcc agtagtctgg cgctgagcca aggtgttaag 180
aagagtcgtt tttccagctc ccgaggcgcc catcaacgca atcattagtc cgggcttcgc 240
ataaccactg acaccgttga gcagctttcg agtcccattt ccataaggaa ccgtgaattc 300
gacgttgtcc caggtgaaga cgcgctcact agaagaaata cgattgaaag cggcttcatt 360
gttgcctcca gactgcgtca ctgcatcgcc ctggccgttt tcttcgtcgt tgggcttttc 420
cgtggcagct ttgatttgtt tagcattact ggaacgcttg aaaaccaggg caccgtcacc 480
gccaccgaca aaagacagag tctccgtggc gatgacagtg accagcaggt acaaaacagt 540

600 aaaagcgatg acaacaccaa agttgcgcca gaggtggtga cgcgtgaact ggaatgttgt actcaagtaa tegetteetg caacgteggt tgageegage ttggateegg tgagagegea accctggtac tcggggctaa cgccaggacc ttgcgggacc agcatagaag gatcgcaggc 780 catgactcgg tcagagaact cattggacaa gacagactca taactgtacg atagcgggtt gacatagaac agccatccga accaaatcga gccatcaatg agaccttgct tcggaatgac 840 ataaccgacg aacaagacca gaacgttcaa agcaatacca gaaaaccgga cggcatcgtc aatagtcggg gacagcgcgg cgaacatgcg atacatagac gtgatgcaga aggttgtggt 960 atacacgaac aggaagtaaa tccagaactt ggaagccgta gcatcgagac cagcaaggaa 1020 atagacgacg atggtaaacg gtatacacat gcagaggata gccgggaagt cgacaaccac 1080. gcgggcaatt gcaacggcgg acggtcgata gaaagcatag tctttgtgtc gcgcgacaat 1140 agcacgtccg gaaaccgcag gcatcagttc agtcaactgc agccaaccaa ggaagagaat 1200 cgagaagaaa agagcgccac cacgagggaa ggcaccattg gtgttcatcg cctcgccata 1260 gaatagggaa gagacaatga aggcgttcga gatgattata aagtacttgg tgtagagaga 1320 agtettgtca ceccagagaa gecagaacte gegaegeacg caageageca eetggeggge 1380 gatagagaca gtataagggg acttettega gacagtetta etettagaeg attggaeagt 1440 cttctgaaag cgttgggtat cggcacagtt cgtgtcgtgg agctgatcct cgtaggcctg 1500 aacttegtte tgaataaget tgtagtaete getetgeegg aaageageet caagtteete 1560 gggagtette ggtgtegatg cetegeggee tteetgaaae tgaegggegt tagggtegea 1620 aagcgatgtc aggaagtcgg ccgttgtcga ctgctcaggg cagtagaagc caaggttgac 1680 gaagtattgt egggegtagt gtgeagggee ttggaatage atgeggeeag agtegatgae 1740 gagcacctta tccatcagct cgtaaatact ctcaccagcc tggtacaaag tcaccaaggt 1800 agtgcgtttg ctgacgtcgg tcatgatacg gagagacttg gcgtagtcca gggcagtgct 1860 agcatcgaga ccgcgagtgg agttgtccca gcagacgacg gacgacttgg tagctagggt 1920 ttcagcgata ctgacacgct tcctctctcc accagagaca ccgcggacgt actcgttccc 1980 gacaagggtg ttcttcgtgt gggtgatacc gaacattttc agcagggcat caatgataat 2040 cggaatgett teettgtegt tettettggt ettgttaate aaagagaaet tgagegtetg 2100 ccagacagtc aggtttggaa agtgctggtc gtcttcctgg ttgtagttga cctctccacg 2160

gtagtgccta teetgeteag cagegetgag accaeegtag etgacateae ettecaaeage 2220
ageaaaagea eegeggtegt tageaatgge ettgaggaaa gttgaacaae eggeteetgg 2280
gegaceaage accageatea teeteette aeggacagtg eeggtaaagt eatggateag 2340
gteaegeaca ggeggettet teecaaaeeg eagetgagge acaaagegge agatgatgt 2400
gtatagatee ggteeaaagg tteeaatgae ggeateagga agegttegaa eaaaagaage 2460
geeggtetga aegeeettga eegtaaggtt ettgaagaea aegeeeaett teetegeeg 2520
gteeteetgeg gtggtaegee gtteaagatg aeegeeeatg aggaaateeg teaagteaaa 2580
accaeeatae tegetttege eeteettete gagateetee teetggageg eettttegge 2640
ateetggtge tggetggege gggacegeaa tegatgageg teetttggttg tegaettggt 2700
tegetgeaaa eteaateggg teaateeetg egeateetet eatag 2745

<210> 816 <211> 6803

<212> DNA

<213> Aspergillus nidulans

<400> 816

ctctcattca tcacttacct gccacccgat ttgttgcata aacaatcatc ttaagcagct 60 ccccacatgc gtgaagcttg ttggacatgc cgtaatcgca ccattcaatg cgatcagtcc tgcttcccct gtctgaaatg caaaaaggca gggctggagt gccgagacaa aaagcccttg cgatgggtcc aaggcgtggc gatccggggg cgaatgcggg gatatatgta caaggagaca 240 cctacaaatc atgatgccat actgccgaca tacctcagat ccaagcgggt cagaagagga 300 ggccaccage ttcagettae getgeaggae ceaegeatge agaacetgga tetategteg 360 agatactaca ttgactactg tgagtgtact gggaatctgc tcgattggcg agatgtctat 420 gctaatacaa ctgacccggc ccagacagcc agcgtatttg cagactgtat atcctgcacg 480 acagcgacag caaccegttt cgcggcttgc ttgcttacgc gcttgaggat gctcccttgc 540 gaaaaagtgt cattgctctt gcagcgcggc atactgcgaa tacggggtac tcatttgacc 600 agtctgacaa aaacgacgtg gtggttccca ctccacagtt gacgtatgct actctggatg cgctccgttt caaaacgcag gctatcacgg ccttgcgaga gagactgact cqtcaqcatc tggagtttgt taagacagac acgacgattg ccagcatctt acttctcatc ttccttgagc 780

ttctcgagtc aggactggat gggtgggatg tccatctgaa aggagccaga actttggtcc 840 gcctttatca gtcccttaga ggaaagactt acggtaactg cggctctgga gatatggagc aagaaataag cacgtttatt accagacaat tttccttgtg cgtctgcctg agtgaattga 960 acaggtgact tactgacaag accggcaaca gaatcgaaac cctcggcgcc tcgctctcgc 1020 actttaaccc tatatctgaa gatttttgct ctacaagcta tatactcaac ccaggaaaag 1080 agtctattgt tcgaagcttc cttgggtgtc cagaatttat cctaaggtct atccagttct 1140 teteaageea aagacagett getgeggagt egeegeacta cacageacae atgeaggaca 1200 cccttgcgat gcttgaggta accggaaatt tcaattctct agaatgggcc tcgaggctcc 1260 aacatcagca atcaagcccg gcttctccat atacagcaga aatggaaaat ttatatatgc 1320 tgggcgaggc gtataagata gctgctttgc tatacggcag acaagtactt ggaccagagt 1380 tggcaactgc agagagtaat ggactggtct tgcagcttct gggtctgatt gacgccctca 1440 aaacccaaga ttcgctgttc aagtgcctcc tctggccgac tttcattgct ggccttcact 1500 gcctggagcg agaccagcag ggacttgtgc atgattgttt gaaaaggatc tgggaactga 1560 cggcttgcct aaatgtcatc agtgcctcta acatcctgaa agattgctgg gatcggacca 1620 ggttctcaga aacccagttt cgttgtgttg ggttggatcg ccgctggctt ttgatatgag 1680 gegeattgee geteteetae geettaeagt aetttatgga tagteteatg attgagaagt 1740 gtctctcaag ctcgagtccg gtcatgctga tatgaaaata cagcattgac gacttcaggg 1800 agtagaagcg cgctcgaggc agcagtgatg aaccaccttg gttgctgtgg tcctgcctct 1860 ttcgaagccc ctaaatgccc cagctaggta tttttgtgag aaattctcat cctcagctat 1920 ctggtttacg gggtttgatc gggcggcttt actctgtaaa ggagaatctc tcatgcttct 1980 atgtaaacat atcatatcac gacaaccatc acgagtattg actatcaaac tgtactctcg 2040 tegegattge teteteegee aacceegtae egagatetga ageeggaace ageettteeg 2100 tagagetegg caaaggeeaa ttattetege ttattgatee gaeetgetea gtgtagatat 2160 ggggtcgcgg ccatgtcgcc gggtggaata accggctctt gcgcaagcga cgcagttcgt 2220 ttccaggttc tctaaagctg cgcttactat cttcaagagc agaatctgag accgacgagt 2280 catcaaagag caactcaata cgttcggcat cgtcattgtc cacgctagag tccgggcatc 2340 ttatgactcg gatcttcgct accttcgcat aagtcttcaa gcgctgaata ccgccccgg 2400

tattaggcaa gaccgagaat gcgggccggg agttctgcga gagcgcaatg agttctccga 2460 ctgtgctcca gctcccggat gtgtgtcttt gcacgatgat gtagatagta tgcgccgttg 2520 ccatgaacat atgaattagg agtacggaca tggcgaggta tgtagctagg gaactctgca 2580 atgaaaaacc gctgattttc atctctgctt tgagtgtgat atacctgtct gggttggttg 2640 atggggcctg catagctggt ctgttttcaa gaattaaaga agtgaactct ggaagggggg 2700 tatagttcgt tatggaccag tctgacaagg atctagtggt gttgaatacg cgatgacttc 2760 ctgttcggct cagaccgtcc aggataacac tacagatgat ggcttcgacc agcgagacgc 2820 gttcccaggc tgcgttgtcc cttgaaagcc atgattccgg acttgttgct acgccggcag 2880 cgtggaagat gctttcgatt gtggaagggt accaggaact gtcctctagg gctgttgcag 2940 cggccggcgg tgtcaacagt tcaagccaat cgtcgccgag tgcaacgcgg ccatttgttc 3000 gctcagtgga ggcagggttg tatgcagggg tccggtcgcc gaaaaggata ttccacgggt 3060 accageetgt ecagaaggtg tatttgtetg tgtaaactgt ggetggaace eageeegeet 3120 ggactgtaca accgatcaca gctctggatg actcgcccgt ccatcttgac gaccatggcg 3180 actcgaagag tcctcctata ctggcggctc caaagtcggc agggaggtga acccattgga 3240 accgcaggtg gtcagcgcga gttttgttca gggtttctac ctcaagtggc agagcatcgc 3300 cgaagtcgaa ccggccgtgg acaactggga atactacgac tgtgtctgaa gcgcgtagtt 3360 gctggggttc tccacaccgg acgactgtaa tggcattctt gaaggtagcc aaggcagtcc 3420 ggtcatcgac ttggttatct gtgaggcctt tctcttcttg aagggcgttc caccagtctt 3480 ctgctagctt ttgtaatatc accgttgtag ctgcgtgtgg ctgggttaac gtggtcttcc 3540 cattaggctc ttgctggata tcgccaaggg cgtaaagagg gggaatcagt gataaaggac 3600 tcgaaatagg ccagtagaat ctcgatcccg agagttcctt cgcgtaggag cggacgccct 3660 gggtttgaaa tgtgctgcta ttcatggttc cccagtgagc tagtagagat ccgtatcccc 3720 cgccagggca gattgctcgc tctgcggagg tttcctgtgt gcagagtgcc tggagctctg 3780 atatgtcttc agataggtca tccggccaga actggtcgtc tgtgccgttc aggtagaagg 3840 gagtecegee tgegetecag tettgagatt teggaacgag tagegttgea ettgeaggte 3900 cagctagggc agctactact cctgcgacga gtataagagc tatcagagca atcttgcggg 3960 tettgettee ggeageeaca tateteaage teeegegaaa eteetgggag atgaaataet 4020

caacatgatt aaaggctagc ccggagccca gaagacccaa aggcagccct tctccaaaga 4080 gaagttcatg gcggatatat tgcaggacga tcacggctag gctggcaacg atcgccatct 4140 cgtgggcttt ggcacagagt tggaagagca tcagattgat tgtctcagat ttgaaagggg 4200 acattaggtc tgcgccgaga tatgcaccct tcatgctgta tgctattacg atgcttgaga 4260 ctagaatcgg taaaagatgg actgcgcaag atctgagtgc tgccaatata gatcgggtta 4320 tgacgacttt tgggggctct tcatgatcag agcaggtgct cgcaatggag gaagtctcca 4380 tggatatgtg cttgccagaa acattccaga agggtagtcg catgctttat ggtaaaattg 4440 cttgtactaa gtcctgacgc tgctgtatca aagaggctga gcttcactcg aacgccggga 4500 acgctggggt aaacatggag cgtaggggag cagatggggc taaataagag tcggccatct 4560 caggggaaag acgttatatc tagctgagac cctgggcggc taaaagtacc ttgcttccat 4620 tggcactatg aagccagttc ataagacgac ttatcgaacg tggacaaata gcaggggtgg 4680 gtcaagagga gaacctcccg cgcttcgaga tcatgagtaa tccaaatctg cgcgccgttc 4740 ctgctggcag ttatatttgt ctgggtaaaa acgggtttcc cagcattgga tggcctagca 4800 tcaattgaag tgatgcactc gctggtagtc tgagggcagg cgcttagggc tggaaattga 4860 ttggacagca cataggtcag gcacgctaat ccaaaaatgg aggcggccaa ggatctcggc 4920 ctcagttgtg tgaagtgtcg tcggcaactc ctgaatctac cacttctttc cctcacccgc 4980 ttccaccatc gactttccgc catattatcg tggtttagta tcggcagtcc atttaatatc 5040 gcgcatatgt cctgaactgc atatatcgcc cactgaagcc gctaccagcg ctctcaacgt 5100 tcgcgttcaa gaccgacgat cgggcggcac tatccgtcca cggcggtgga cacgccagga 5160 atgactgacg tetegegeta tetteaettt ggeegattet etetgteege gaetggggte 5220 atcgttctca gctacttcgt cctctacgtc ctttccctcc ggtactacca tggcgttagc 5280 tategtgate egacetegta tittitegae geegacegeg cetaegageg acattatieg 5340 gcgaaacgag ttgcggaggc ggaatcattt ctgagcgcgg ctggcgatgt agcgcctcct 5400 tcaagggtac cgggccagca gccgtccttg tgtatgggca ttgtgtcggt caagcggagg 5460 ggagatcagt acgttggctt gacggtggcg tcgctcctgg atggactgaa tgagtgggag 5520 aggagcaaga teettetgta eeteegtate gggaataegg acceaaaagt ceaccetata 5580 tattcggaga aatgggtaga aacgctgccc gatcggctgt tgacgtactc gccagacgac 5640

cccgattttg aacaactcaa agaatgggag gaggggggat ggtatcggaa caagacgatc 5700 tacgacttta cgacgctgat gaaagaatgt tatgaaagcg gcgccagtta cgtcgcaatg 5760 cttgaagacg ataccetgge agteaaggge tggteecate tgeeatgegt geeettgata 5820 cagtecagte geggactgeg ggeegagaet ggatetaett gegtetettt tatatagatg 5880 gcctgctagg ctggaacggc gaagagtggc cgaaatatct aacctggtcg ttcattgtct 5940 gggcgtccat tactggagcc atggtcgctt ctaagagagc gtttaaaaca gagctcaggt 6000 ccatcccgat gagcgctatc tggctcacat cgaccgtatt tatcccggcc gccatcgtcc 6060 tccatttcct ggccggccgg cagacaatgt ggcccatacc gcccggtgtc cacgagatga 6120 ataagtacgg ctgttgttcg cagggccttg ttttcccgcg ggctatcata ccgccgtttc 6180 tcgagcacac ggacctaacg acggactggt tggttgacat gatggttgag aagattgcag 6240 atagccaggg gtggagccgg tgggctgttg ttcctccact gttgcagcac attggggcca 6300 cgagetecaa gggatacgga ttegataaet eggeeagtae gatetggaat ttteggtttg 6360 aggagtatga tgtttagtag tacacatacc ttggaatata ctctcgacaa tccagtttcc 6420 gtcagtacta ggcacacaat caacaatgcg ttggggttat ggtacccctg cccttgtagt 6480 ggttgatgca tatattgaat agcgtctgaa ggagtatgat ggtggcagga atgaccctgc 6540 agagcatttt taaggtatac tagatgtctc gagatccgct acagaatcca cttaacagac 6600 atcaaggcgg cttcaaaccc ctcatcctac gtaaggcacg cagtcgccag ggacttttac 6660 ctgctggcca tctcgattag gttatgttcc tgcaaggcag tgatgggaaa tttcatacgt 6720 teetgttace tggaatgteg aaacegggea gaeteeataa tgtetagaeg tgtetggaga 6780 gaggaaccca ctccgtctag act 6803

<210> 817 <211> 1627 <212> DNA

<213> Aspergillus nidulans

<223> unsure at all n locations

<400> 817

cgtgcggcac tcgtccatac ttcctcacca gattagcaac catatcccac tgccttccat 60 .
cagtcaccgg atcctgaagg agcttctgca ccaagcgact tgagatatct tcatttgccg 120

tctcaatgat cgtctcgaag aagtagttgg ccttttcgat cttgtcccaa tagaagagat acgcctggct gagctcaagc tctttcagcc cgtacgcttt cataatcggt acccggaata 300 tattggtcga tgcaaagagc cagcatcgcc cagaagatcg ctggttcgtg atcggcgagc cttcaatggg tactttgaca ttgaatacct ggatatcgga tcgtagagcc gatcggttgg 360 cgaggaggtc ggtgtaggag gcgccagcta gactggagat tgccagacga ttctggctgg 420 gttagtcctg cccagtccct aggccgaagc tgccagcctt acctttggat ccgcaagcag tgtctcgttc cagtccttca ggcgatggag cgacaagctc ggttcccgct cttccattgg gtacggcgga gctagaatgt cagcggcact ctcccatgtc ttcttgaata tgaccgtagg 600 acageagaac ctacgagact ctttctcctt gtgcttatcg gtcaccggcg gcgacagage .660 gacctccgtc tccccccgag gactcttctc ctcgagagcg ggcactgagt aagatgatcc 780 catcttgcgt gcggtctgca gctgcctctt cctggcgagg gtgatggagc ctggttaggg agggaaaatg gctgtgatca gagtcggtgc ggggaagtga ggaccgggaa ggcgccgata 840 gcagactggc agcgtattgg ccaagaagag agcacgcgat gcaaccaggc ttgcttatca 900 agcggcagtc gcatcccagt agttctttgg gcaggcgtct gcagtagaag gtggtaagcc 960 gtccttggct gcaggagtat aatctctagc ttgggagcaa aataggtctg gtccatatat 1020 ccatataatc ataacaaaac tgtgaatttc cagaatagat agttctccgt aacaaactgg 1080 gccagtagag agtgcagcag tggttatatt tatatatctg tcagatagta gcatccgcat 1140 acagtactac tacctttatg cactgtcttg ggcttgaaat caaacatcta tagccctgtc 1200 tacaattgac tatggtcatc ttagacatat ttcttacgtg caagaaagta agatacctct 1260 ctgtttaata ggattattag attatcaaca ttctacgaac tggttaacat aactaatttc 1320 cttgaaatct agcataatct acttgctgtt ttcaaattag ttaagcacct attccaggta 1380 catatactag cactitatac tiagatigag tacactiacc cetitatete teageacaat 1440 cagtaatgaa gggtcaggtc gagttattga gcttgacctg tgccatgcga cagcttgagt 1500 actgagaata tagacgtgtt ctgtaaaacc ggcgtacctt cgctgcaaac caaagagtat 1560 gcggggagac agtgcggtat ctaagaccct tgaggtcggc tagggatcng tagtgtcagc 1620 1627 gtaattg

<210> 818

<211> 3182 <212> DNA <213> Aspergillus nidulans <223> unsure at all n locations <400> 818

ggtagtttcc agagcagaaa tgcctggtaa accatggctt atacagccag ggtgttgcaa 60 ttctgcgaag ttcaattgat gtatgaagta tgattgattg ttgtgttgtt ctgaagctat cgccagtgat atcatttett attetgeeeg acgaeegaee geetgggtea egggetatea tccaggccac aggccatcat cccgcgagcc aggctttggg atatggcaac aatataaccc 240 ttcatgactg gcttgctatc tttgatgatc tttctccaga ccataaaaac tgggtatata 300 cttggggtgt atctattagc ctataagacc tttccttcct catgtgtgga ttattggggt 360 ggttatgtaa tcaatatccg tagttaacga tttcattgaa ggtcttgatc tcctaactac 420 gatctgtata ggcaatttat accttttcca aggcttcaaa aaagaaggtt cttgcttata 480 caggagatat ccttgccata taaacagtat aaggcatcaa atagatatcc ctgctatata 540 aacagtgtaa agtcttaaat agacaggcaa ataaacaagg taacttactg aatattgatt 600 agtaaggagg aatctcctcc agttgacata ccccctcagc acattgagag tccttcagtt 660 teettettgg gattggatga ggtettteat gtetactagg ttgageatee tgaeaaatte 720 ttggtatttt tagattataa ggctcttagt aaggccatcc gcaattatct ggttggtagg 780 tatctattta acatggagtc ggccttcctg aacctcttga caaagccagg atctatatat 840 ggcaatataa cagagcttag attgttgctt aatattttca gaggtaagca agttaatggt 900 ctgttagtta ttatagtata ctgctatcta atgttgcaga tcaaaaccta tgtgttatgg 960 gtcctttgcc tatacaagga ccttagacct tagtgactcg gccaaggcct gcgctgtcct 1020 gaaggeggtg agecacetae aagaetteet cacaacaaca atcettett eteettett 1080 ctttagcgat tccttcttgt acgtacggca cgtctagata ggaagatcca tctaaataca 1140 tcccttaaca ttaggaattg cttactaatc tcaataatag tatgaggaga ccttttacta 1200 tgataatgga agaagaaagt attatattgt tgctacagca gctccaggag ctctgtacag 1260 agatatagac ttagaaataa cagctctaag aagagaataa cagcttatag gcagaactac 1320 aggctgtaca gaactcacag ctaagaaacc atctaccagt tactactaca gttatatctg 1380 taatgcctat cccttacaaa caaagctatc cctgtccttg tcacctggat attgaaccct 1440

ttactagaga agaccctaag gactaccctc ctttctagat aaatctttgt acaaagttta 1500 taattgacac tgcctgctac cctatagagg aggaacaagt ttactatgcc tacagctgcc 1560 tgagaggaaa agccagccag catatactac catagctctt ggcttgctag aaatctgaga 1620 ctcctgtgct ataggcagaa ttctctgtag tactagacaa ggcctttggt aatcctgacc 1680 aacagagaaa ggctcttgta taagtaaata taataaggta agggagacgc gactttgaag 1740 agttcttgaa taaatttaac aaagaacttc ttaatactgg agggattaat taggataata 1800 accagaagaa gaccttgtta gacatggtaa ttaatattga gttgctaaaa gccatggttg 1860 gtattaggca ggaggatttg tataataact actgtaatta actgcatgaa atcaaccaca 1920 acctccagag aatagccagg cttatataaa aaggatctta tactgctgtc cctatatata 1980 ttgcttgtat aagaccagca ggaggctctg actggaccag aacccctaat taaatagact 2040 aggaagccac ccatgctcaa attgcagccc tataaaagga agttgtggcc ctctatataa 2100 aagggaccag gatcctaaga aaagctagtc aggtgcctgc agaggagaag taaaagaggt 2160 tgtctaaggg caaataccta tgctgcagtg atcctgacta ctttatataa gaatattcta 2220 taaaacctac taggcgccct aggcaggtgg ccacagttta ggaagaacaa gactaaatag 2280 ataactacag caagagcaag tcagaaaata aataacctct atgcaaagtt gtatatagag 2340 gggttataca gctagagaaa tactacttaa ttggcaagat ttcaacagct cgcgcatgaa 2400 taccccccta ttcttagtag aggtactagt taaccatacc tataatgctt gtataataat 2460 agatacaggc tgcctgacct atggggtaat cagtaataag tttatcaaga tatattaaat 2520 acctactata cctatccacc caaaaccttt caagggagtg actgggaata tagaggagat 2580 taataagatt atataggttc agctagatat cagggtgtat atagaaaaag gagcctactt 2640 ctatgtaata cctgataacc tgggctatga cttgatcttg ggactcccct agctggagca 2700 atataataga aggttagagg ctaagagggg caggctgtac ctctgtacta ctagagtcta 2760 tctatagagt actacaaaga ggcccttacc aaagctgaat atagcataga tatctgctgc 2820 aactatagga ggatttatat aaaggaaaag gtgctgtagc caagatatta agatatttgc 2880 agtettatta gtagatatat agaaggtaet ggeectaaag agacatatta acceetatae 2940 aaagctacca aggcaatact ggaaatacct aaggctcttt aaacaagaca aagtagaaga 3000 actactactg taccagggag ataggattaa ttacaaaatc aagcttgtac aggaggagag 3060

taggaaggat cctgaagtcc cctagggccc cctttataat ataacccagg aagaactaat 3120 agttctctgg aaaatactct ctaaactatt acagaaaggc tntatctata taagctattc 3180 cc 3182

<210> 819 <211> 1024 <212> DNA <213> Aspergillus nidulans

<400> 819

tatgaacgaa ttggactcta taatgccata tgcttgagaa cttcctgata tttttgaggt 60 taaagagagg agtgtgatgg gacagacgaa gggagggctt tcatacacca cagcaacgat ctgtatctag ggttgctact gaacatgggc tctgcggagt ttgtgattga taaagcttca 180 cgtgctgttg gtaatgtccg atgtccttcc tggcatatct actgattcac atcatatttt 240 acgettettg gacagtttaa tggattgtee etgetttaae egecateete caggttgete 300 tacatcctac actagcaaag cactatgcaa aactaagata caaagaactt attctacggg 360 cctgcagcag taccgtcata gactagacag actatttaca atattggtag cgggcttgca 420 gaataatgga aatacatccg gttactccaa tgtctgctta atcctttgaa catctgctac 480 ccagttcatt cggcatattg attgtatgta cattactctg gcttaaccag tgggcgcttc 540 tcaatcttca cccacatgtc gcgccagaaa cccacgcctc ccttgatcac aaacttagcc tctggcttcc cctggacggg gtagggcttg tagtaacgga agaactagat acgttagact 660 tatcagacat tacatggatc accgggggaa gaaacatacc tgaagtggcc ccttgaacag 720 ttccatcatg gcaatatctc tacccaaaca cactcgggcc ccgtacccaa aagtaaagag 780 gtacttgttc atgatetteg eeegeteggg atecateeag eggteegggt tgaatteete 840 tgcgtccttg ccgaagacgg cctcgtcgcg gtgcatgatc catgggtttc ctgttatctc 900 ggtgccagcc ggcgccacct tgccgtacaa atccagtcct ggttcggaga cgtagcgggg 960 gaagatgttt ggagcgggag ggcacattcg gagggtttcc gtacgatcgc acgaagaatg 1020 1024 ggag

<210> 820 <211> 2434 <212> DNA

<213> Aspergillus nidulans

<400> 820

aagcctgtct ctcagactcc ttaatcatgc gcgtgtttct gccatttgct atagcggcca 60 tgaccgtcaa cgcagccacg tttgactggg actgcaccaa ttccctcgga gcatgccaga 120 actactgett ttacgcacag tgtcgtggcg gcgcaggcca gcaactcacc tacgatgccg 180 acacttccaa ccgtgcaccg cgcagacggg cttccgggtg cagcaagacc ccctgcagcg 240 acacgageet gtegtaeteg agetteggea acteetgtga tgagttteee tttgegagta 300 cgcgcgaggg cgggtcaggc gctcgcctga gatgcgtgga ttcaaccgag aatagcagta 360 catctttcac ctccaaattg attagctcca ctgacctgat ggataggcga gggaggtcag 420 cttagcagtt tctacggcac cattaacgac ggcgacacgt ttggcatcac cattgagaat 480 tggaggggag cgtatgttct ggctaacaac ctgcttttta tgtcatatag tagccctgct 540 aactctactg tcagctctta ctgcgaagat aacccgacat gctccaacga cgggggcgaa ttcttcctcg atcctaccgg caactttgtc gacggcaaga gaagtatcac tggtcgtgga ctgacgcttg atccgggtta cagcactcca gcggcaaaac tgaggacaat caaaactgaa 720 gacggcaccg agcatctggt gatcgctgag gattctggca accctctaaa ggccggtgac 780 gagatctgga gtgcgcgtcg taatgccact ctgaaaattg tggattagta gacgcgcaag 840 cagtggctga cccaagtgaa agaaatcatt tgtactatgt agggagtctg agctcactga 900 acatggatca aaatgggggt aattgcaact accttagcag ggataatatg agtatatagt 960 gatgttaatg ggacattcag gcattccagc cgttctatac ttcatacaga tattgactgg 1020 acttccatga ttctcgacta gttataagac atgccgtaca cgtgtttact tttgcccttt 1080 ctccacattg agggatgatg cagcatatct cgcatatgct gacctctgct cattgacaag 1140 agaagccaaa ccccagtttg tctcaaagca ccgaaccacg tcaaatctgc agacggtgct 1200 cttttatgac ctttggtgcc ctcttgcttc cggcattcct attgatcaac ttcgaactat 1260 tgcacaccac teccagttee tgaggeagee catatatett atttteetta tetteeeett 1320 gtttatgtag cgcatgcaga agcactgttg cgtaccttgt ccttgacagc gtccactcat 1380 ggtccaaaca cagatactaa agatactttg aatctttcat tcggtccttt ccgttctaaa 1440 cccatcaaaa tttcgccgat aatagattca tgcacctagt tatgcggttg tcttggtcgg 1500

ccagactgtc gccctaaaat acacccatct acaactgccc tgatacagcc acacgcaaac 1560 atatcaagct gtgcgagtgc gacgaggatg agatgcatat agaaagcttg aatgtctttc 1620 aagcatcatt atttgctctt tgctataaat taacgagaat tcgctttgct catgcctgga 1680 tgaccetcag tegtgeagae getggeagaa ateetcaaee tataataeae tgataaeggt 1740 gaggtgtctc aacagcagcg gttcacgtct ctataggatg cctcggaaat cagattatcc 1800 tgtgacgete geaatetege ttgcaageag agateeggtg tttettetgg ttgttgtata 1860 tetttgagta tattagtatt atetetegea gtagtggeta etggetteta gaactgteat 1920 tgccgtatga tgaaggatta tacctcccac attccaataa ggtttgactg caaagccgtc 1980 cgtgaagatt tattgccatt tccgctgcac ctgaccctat gggcaacgta tattaccctt 2040 cacgaggeeg egagetgtat tgttgaagag eaggteecae eeaagetggt tgeageggaa 2100 aggtcgcaag tgcagtacag ctgtggtatt caaaattctc ggagctattc atatgaactg 2160 cccggtccag ctgtggaggt aattgcatct tttctcagca tattgtcctt ctgagtctta 2220 ttcaaatctc tgattcagcg tgaccactct ccaagcagga ttcattggct gcgccatttc 2280 tatgagcgtg atccgctctg agccgcaggc ttgccaacag tggcatagcc tcgatcagca 2340 tegtagaete tetgegettg ttaegggeeg eettggaaaa gagaegagga eeetgatggg 2400 tattggcact gagctagtgg tgcggcggta acta 2434

<210> 821 <211> 2532 <212> DNA

<213> Aspergillus nidulans

<400> 821

gtgcttcgtc ttgaaataac ctgcatggta taccggagct ttgattgaag cttcagctgg 60 ctcgaagcgg gacgagccga ctcctctgtc aggatctggt ttataagcca gcatataatc 120 ttgcaaacga taatttccac cgttcgacag ttgttccaaa gccttattgc ccaggttgtc 180 ttgtataggt catattggcc attacaagaa acgaaagtcg tactcccacg gagttccctg 240 gtagttatgt acggttcttg cagagcgagc atatcaagaa catgctgaaa atcactctga 300 atcgcgattg cttcttctag aaagtccgcc caggatctgg gtgtctctag aaacttgtcc 360 tgatgcttct ttgcgacgcc cgcgaaaaga gttgcgcacc gcgtggcgag gatgccagct 420

agccatgatg cateceaacg gteggtatat ttggtegeet etteetgeag eteetgeaag tcggccggaa acggctgcac ggtctggata caagccgttg ccatatcggc gcgcacctgg ttgaacatca ggatggcaga cctacgggcg aattgcgatt tgccgcgggc aaccaccaac 600 gcggccgctc ctttgacatg tcgaacccaa gactcaaagt tggagatgtg ctcgaagact 660 cccagcgaga tcaccgccat caaggtgctg tctttgatgg actccgccgg ggatagtgag aggcagcaga tigitigitg cacaggctat ggcctggatc tiggtigteg gccatgccct 780 caacctagtt ctaaataagg tttctgcaac atcagtgtac agcttcggaa attgcggcct 840 cgaagcttag gaaaggagat ccgtcctcat aactttggaa aagggatccg tcggcataca 900 ggtccgggaa gtcagaaagg ttgataaagg gaggaggaag atatctgtgc ttctattttt 960 tgtttctttc tctaagctta tgatacttgt ttgtacagga catccagttg aaaataatac 1020 tgcctatgcc tgttacacca aaggcctgtt gaaagcgaca acgttcatgg acatagctat 1080 cataatcatc ctcataaagg tgcttaatga gaatatcgag atccactctt gttacaggaa 1140 acttttctct gtgtttccaa gccagtactt gggagtaagt tcgttttgat atgctgccag 1200 ccattaataa gatatcaagt acaaggggca aacagtaggc acatattata agcatcgtcc 1260 ttcaaggtat ctggtagctt cgttgccctt accctttcct attcgctaat aaaacaggaa 1320 aggttetgea aaacaetgtg etgaettgge aaagggeeet catgaageae aatatagete 1380 tctgaaaaga gcttgaggat ttggatagga ggatagggtc gccctcctta aaatacagat 1440 cttcaggttg gtttcttgat agcatccatc tgttttacca tagtaatcaa tatctccatc 1500 ctcaacttag ggcggacgag gtttacattc tccagttgtc aacagcacgc tcataccttt 1560 cgtcagtagc cagggacctt ttcttgtgac tgacaatatt ctccttgttt atcaggttct 1620 gttggtaatc ttctgtaaat ccacgtgatt ctgccaactt ctgaagcagt tcaagcttct 1680 tgtgtttcaa atccagtttg gacaaggcca tcatgtcacg tgagttctga gatgggggaa 1740 atgtaaataa gataaacata aacgtaactg gcatacagtt aaaaggaatc agataaaagt 1800 cgacgaagcc ctcgctatta atcttaagtt tggaggactc atagtgtggc cgaaattttg 1860 tgctctcacc catatcacct gcactcaccc tagtcttagt gtctctcacc cctaaaagca 1980 gcagcgcact cagggcttgt tgcactttta tccgcgttga taatagtggc tcaagtacgg 2040

ctgagcggac gggaagccct gttttccaca ccctatggtc gtatgtacta gttttcagag 2100
tagaaagttt gatattgtcc aaactagaat tctacggctg tacttgaact gatattctca 2160
gggtttggga ttagggcttg gatacttacc attggcattt agcaagcaac aaaagtacat 2220
caagaacacc agcaccagga agcagctaat agaagcactc aatgattaat caaccataat 2280
cgaaacaaag cattataaaa gagaaattac caacattcag ggccacggcg gatatcaacc 2340
ccgggcttgg tggttcgccc acccttaagg cagtcatatt tcaccattca gtacattagc 2400
gaatcacttg tatatcaagc ctgtcagaag tctcattata ggacgtctca ccctatttt 2460
cgtcgtataa taaactcata gggtggacga cagaaggtat gcgaaggaag acagcacgac 2520
gtgcagggaa ag 2532

<210> 822 <211> 2681 <212> DNA

<213> Aspergillus nidulans

<400> 822

atccccactt caataactcc aatctcgtct tgctcatgat tgaaaatctc aaatgctgtt 60 geogecaaca attegaacte gettgeeeeg atgeetagtg titgateeeg cagetttace ctggcctcga tctgtcggaa gagcgactcc tggacaaccc gttcatcgat tgtaatgcaa tcccagcgat caattaagtg tggcgaggtg aaacggccgc agcgaacccc tgcggaggcc aggatatgeg acaggtagge getgategag cetttgecat tggtgeegge gatgtggata 300 gccttccagg acaacggggt ctgttgaacg agacgggata tcctgctgag gccaagctca 360 atcattccgt caagtgtacg atgtgcaacg gggagaactg gaacccagcc ttcatgatca 420 ggatatcagg aagagettea aattgeegee aateeatteg ettteeegeq qqaaqetteq 480 gagttctgtt tatcgataaa tgtgataagg attacctgtt attgtagcct gaggtgtcaa 540 teetgtagag ceatatgtag gegeaegeag eggetaetee gtaeeetett tegeataaae 600 tccgttgcat ttacggatac tgactgtcag acgaaaccaa accatcgagt agaagacgag 660 aaaacgtttt tgagagcttg ttaggtccca gagcgataga gacagcaacc cagcttgatt 720 ggcagtagaa acgcgagtgt cgcgccacat cccagcctca tccgagcgct ctcagccgct 780 gcccggagtc gcctccgctt ttacgtttag gagcaaaatc gaatcttgcc gtttctctat 840

caacaccggc ttgccctccg cacccgaccc tatcgtcgcg gcatcttttc ggagtcacac 900 tegttettta caeggttete ggageggege etettttgtg gattagtttt gegacaettg 960 agttaggaat aatcggcagt tatgggtatc ccgtgagttt gtcgctatcc tcccctgctg 1020 ggtgccagta tacgcgcctt tcgcagcgcc ttgcggtgcg catacgacag ctgaactgac 1080 tggtgtcctc tagtatgtac catgagcctt cttccgcaga ggccactaaa aacaacagcg 1140 tcaaggaccc ttgtgctgcc gctcgctctg caattcgtcg ccaggccact gtccgccgcc 1200 cttcgcgtta tggcggttct gcttggcgcg gtggcactct gcgctcccca tttcctcccc 1260 ctataattga tgaggtagag cgcgaggcga gcggactacc gcgtcattcg cattcaccag 1320 cttcgatgcc cacacgttcc agcgatccct ttgacctcaa cagcagcctg gccgacacca 1380 gtcgcgggtt gcgaatgatt gatgacgctc ttcgtcatcg gccaagtcat aggctacgga 1440 taccgcgaac ctcgactcta tcagatttga actcgcgctc tgccgctgac gcgaatgccc 1500 ggctagaatc tcaggatcat ctccctctca cgccccgatt cgctcctgcc gtcgcatatc 1560 atagatette aacacetttg gtaggeteag attttetteg geggteacet catgatggte 1620 ttggtgatga ggctccggca ggatcattca tacctttatt gcgacgcatc ggtcagcgct 1680 ccatcaacga tacgagtctg acaggccgtg ggccgtttat cgacggccta ggagaccgcc 1740 aaagaagcgt tgacttagat gacgaccacg ctaacgatgc ttgggaaacc cttttgacta 1800 ctataacgcc cgataccaat cttcccagtg ctgattcttc tttcacttcc gcatctgcct 1860 ctgggtcgac tggttcgcat aatgaaactt tgagaagttc tgcaacatca ctcgagtccg 1920 ttctgaaccc tgtgccttcc acagtaccca catttcagat gacgcttaat ccttaccaag 1980 agtetacgat ecettgtgae taccecagtt ceacegatte ggatacegag teagaeggeg 2040 aaatcaccca acaatcgcta ttccggcgct accgccgtcg tatgcgagag gtcgagtcct 2100 tgagacgctc gcaaaaccgc caatcggtta ttaacaatgc ttcttctatt cccactatat 2160 ctcttgcctt ctccgattcc tccgcggacc aggatctaca gaacatgcaa gccattctgg 2220 atcgtcttgc ccgtcgtgaa tatgttcctg atgaatggtg ggctgcagcc ggactgtctc 2280 gcaccattga tcagaggaca cgggcgggcg atgattccga cagtactccc gggccagaag 2340 gtcctactag gcatagataa gctgatctca tttttccctt tcttttagtt aagatttgtt 2400 attctagttt atgcggaagg tcttcatttc aggcagattt agcgggaagg atatcactgg 2460

ggcgtttgtg gagtctgatt ttcgggctac ctttacctat cttgatattc atgaagcccc 2520 tccggttgaa gatgttgtac acattattat gcgttttggg gcagggccag actatgaaag 2580 tgtgtcaatc acacgcataa gattgacttc atcgggaatg tacttgcccg tcgtatcgag 2640 ttgttctgtt tcacgaagtt cgtcaacaga atatcgagtc g 2681

<210> 823. <211> 2674 <212> DNA

<213> Aspergillus nidulans

<400> 823

aacatggtct gtcgaaccta cgcgaacatt gcaagctgca accgggtatt ccaatcaagc ctatgcttgc taagccgacc aaatctatta cagaagtcct agaccgcttt gaaggcaagg attttacatg cgagtataag tacgacggag agagagctca gatccactac gtcgcacctg 180 acgaaacgaa aaactaccca ggcgcccaac ttaccttgaa ggagagcgcc gggctttctg 240 ccattttctc tcgaaactct gaagacctat ccaaaaagta ccccgatgtc ttggctaagc 300 ttagcacctg gatcaaaccc ggtgtcaaaa gctttgtgct ggactgcgag accgtcgcct gggacgtgga agcgaagaaa gtgctccctt tccaacaatt aatgactcga aagaggaaag 420 acgtcaaggc agaggacgtc aaggtcaagg tctgtgtatt cgcgttcgac cttctgtttc 480 taaacggaga ggtatgtata tctatatcta aatccgcttt accattagag caccactaac actacactcc tccatagccc accgtcaaaa agcccctgcg ccagcgccgc gatctccttc 600 actectett ccaaccaate gaaggegaat tecaatttge ccaataegga aacaccaaeg 660 acctegaaca aatteaaace etecttgaeg acteegteaa ggeeetetge gaaggeetea 720 tggtcaaaat gctcgacacc gaagagagcg gctacgaacc ctccaaacgc agtcgcaact 780 ggcttaaggt aaaaaaggac tacctcgccg gcgtcggcga ttccctcgac cttctcgttc 840 teggegeata etaeggeege gggaaaegaa etteegtetg eggegettte eteetggetg 900 cgtacaactc gaactcgcaa acatacgaaa caatatgcaa tattggcacg ggcttctcgg aagctatget tgatgaactt cacactacee tetegeeest tgteategae egeecaaaac 1020 cettetacag ceattecacg gtececaaag accaaccaga tgtetggett gaaccgeget 1080 atgtctggga agtcaaaact gctgatctca cgcttagtcc gcggtacaag gctgctgcgg 1140

atgagtttgt tggtaccact ggaggcggcg gaaagggtgt ttcattgcgc tttccgaggt 1200 tcattaaggt tcgtgatgac aagaagccag agcaggcgac gactaccagg gctgttgcgg 1260 agatgtatcg gaagcaggag gctgtggcga aggaaggttc agggaagggt ggagtggatg 1320 atgatttcga gtattaatga tttgcattct atcattgtca gggctactgc taataaggtt 1380 actttggtta ttcgagtgca tatgggtatt cggacgttag aatgcggcct agtttactac 1440 tgtatactaa teteaaceae attagatgta ettegtgtee ateegaaaea aaegtggeaa 1500 gaaacacaaa gcaaaatagg ttcgcctttc caggttctgt gccaccattg ctcgacgtta 1560 tegeeteeca tettgtgttg tataceegge gtgtegteea ateatggtte attgeeacaa 1620 aaatgatata aaaagtacat atacacgtaa tgttgtacag ctaacttaac catgcccatc 1680 tattaggata atgatcagaa aaccaaagaa tataggaaaa gaacgaagca cctcttggcg 1740 acatacaaac ccacacaaga acatcaaata acaaccagag ttatatcaca ggtcgtcgcg 1800 gccaccaggt gggtgagtaa taccattttt agggttacca ggcgccggat agccaggact 1860 aggattette ettgtaaage etgattgeeg gaegegtagt eeaaagttga taageatgat 1920 agcgaccaaa cctaagccga tgattgttgg gccccatttt tcgtagtaaa ctcgtttaac 1980 gtctcgtcgt ttacggatct tgtcaacccg ccaaatgtac agcattagac tgtagataag 2040 ggcgacggct gcgaggatag tgaacgccca cgagcaagca aacgtggtgt aatcctcgcc 2100 gaagtttagc agggtagcag caatggttcc aagcataatg gaaaactcca gccacgagag 2160 gaaggtccgc tccgcagcaa agtaaacttt tggctcaacg cgaacaggga catggatgcc 2220 tatagaaacg ttagatgcag ctgcagaaag gagtcggttt ggcctacgtt tgcctttggg 2280 ggcttggaac ttcttgacgg ttcgtttatt cccaatgaca gcaattccgt tttgttcagg 2340 tgccggcata ttggtcggca tgggcctagg aacgagagct tttattatat ccactgcttt 2400 agccgtggtt cggtgggtgt aatgcttcgc caattgttta taatagtatg ccccgccaac 2460 tegtegeget tetteeaget etteagagte aaaggaateg teateggaat egtaaagagg 2520 atagtegtea teteceggaa gaggetgtge ggeaatgegt teeteaatgt ceagegegtt 2580 cccagtaggt tccgcgaaca aagtgctttg ttccgttgca cggtagtcat gagcagagcc 2640 2674 acgccgaggt ctcccattac tgccttcttg ccct

<210> <211> <212> <213>	824 1177 DNA Aspergillus	nidulans
<400>	824	

caaattattt tgggcatagc agaccctgga ctttgaccca gggacggagg ctgtcttccg tgccaaaagc aacgagccgc acctgcctgc ccggtgagct gtggcactcc actcgtctgc 120 tgaatacatt ctttactctt tgctgtttct ggtcttcatt tccaggcctg gccatccttc aataacagta ctccagtcct gcgtcctcct cttattgctt tttcccgcgg ccccagacag 240 tacacgttgt gctgcaggtt gcggattaca ggtggaatgc aagccattaa gcgtggattg 300 ataagccacg ccatcccact gggcggcggg cgcatacgta gcttgtacga agtaggtcga 360 gggcgacgcc taaagcaggc aacctgggaa gcagccgcgc cagaccgatc aataatgtct 420 cttggagtta gcttacgggt cggcctcaga gctgctaaat ggtgatctcc cgccgccgat 480 540 tgttgtcttt gtttaccccg taccagttca gcgagccagc aaggggagcc acactgctgt tctcacaatt cggggtctcg ttatctgtgt tgcgcagccc ttgttactat aattggaaat 600 tcgatatcgg agcactggat cgtccttgcc cgtctgcact attcctccgt tgaagcaagg 660 tteteggtta ttataaacag ceegtegeee tggeggeegg agggtcaage gaaaaatace 720 ctttgtagtc gggcctcggc tagcgcgtgc tgttgattat ctgcgattcc gcatgtaagg 780 agggetttta tgetgeegge ceatattaga ceaatetggg tgeeeggtet aagaataege 840 gacagcggtt aagccatgtc agtacttgtg agctggtgcc ggacgtaata cacccagaaa ggcgacccgc cgttgtaaac tggtacttta ttggtcaaaa gccaaagaca tgcaaagtac aattcagggg ccgaaaacgg ctaggcatca tgccggacgc caaaaccggg agacatgagt 1020 ggcaacttgg aactgtgaga tgacatctgc gacatggagc accaggaagt agctctattt 1080 gttagtagga ctgggcgcca ctctggcttg ctcggcaacg gttgctgctg tcacagcggc 1140 1177 tgagttggtc gagcctggct acgaatgttg ctagcat

<210> 825 <211> 2301 <212> DNA <213> Aspergillus nidulans <400> 825

tgatcgttgg taatgaccag ggttgtctca actgtcaggc agctggacat gcacagtgcc tetteataeg ggtaagataa teetteeaae eeatggtgge eaetgggggt ttataatagg aactgatggc tctggctaac atcacgcaaa gatgaactcg tgcattctag acatgaagat 180 tccagagtcc aaggttacag tggtcaccca gacttcctac cagcaacaag actccacgat 240 ccgacctcct accaacgacg acggcgctc agtaacacca tacaacaccc cgataccttc 300 cgcctatata tcaccaggtg tgcctcgtgt atatattccg gattcgcata ggctggaatg 360 ggattggaag gaccatggtt ctgtcttaca aggggataaa gctcccacta agacgatatt 420 accagegace aaegetgagt atectgagte cageteteae gtgtttaete tteaggggea 480 gcaagataat ggggccctta gtatggcgcc tgcagaaagt tcgctgttat ctccagagta tggcttagaa caaaccgttc cggactatac caaccaaatc tccctttggg agagcgacta 600 cggaatcata tctgcagcag atagtccggc ctgactatca gccaacatct tgttcttctg 660 ccttcgaggt tgcgacaggt gtcatcgtgg caggggacaa tctcctcgga aatgcggcaa 720 780 gtggtgttag caatctatga aagcactttt tactcagccg cgtccgcaga gtaccgatgt 840 caactagtga geggeagage tetecatatt cattgggaaa etettgttee tegatategt 900 gttgtgaget agtecattta tettttecag eccatgteee tgagggeaeg ecatetaage cggaactctg catcctgatt ccctgccagc aatgggatct cttcgctctc agacccagca 1020 ataatgtatc agaatctgtt atgatgcgca gtgtctgctt gccagatggt ctgcatctct 1080 aaccagcatg gggacgatct tgttggcgaa gtccattttt atggatgtta ctgcatggcc 1140 teceggteea caatettgae aggetgaaca eetategeag aetgttgett gattttegaa 1200 cgcttgaggt taccatggct tcttttgctt tacgttcaga aataatgacc tttaaagcta 1260 cacaaccgtc acagaaaccg ccgagtgagc attacttggc atcactgcgt gcttagcgag 1320 gcacaataga tatgcgaacg ccatttggtg ttctcagaga acaagttcta tggagaatcg 1380 ggtacacagg ctgcttttac catcgagaga tgcaacgccc gacatcgcct tcagaacgga 1440 acteteccae aagtggeece ceagactaet gtetaeggga aagacatata gtggeegatg 1500 gcctaagacg gagtgtctca attgagtaga gatgatctag ctgctcctca cagagctgag 1560 cggacgggat gtctgttccg tacaacctat aatcgtatgt gtgttaatag aaccaaagta 1620

cgctgaagat aacgcgtggt agacgtgctg taaccgaaca agccttgtgt agtagagagg 1680 ctcagtagat atatgtcgca ttaaattagg ctataactag aatcattcaa actcagaaac 1740 atctgacaag cgggtcgtct cggcatgtat gagattgact gcatgggaac agctcaggagg 1800 gaaaatgcga aacgagtacc cgtaaccgat ggtgtttct ttcagtcgca ttcggacgag 1860 tcagtatat tttcactatt gaaagtatac tatcgattcg cagtaatacc gtgccagtct 1920 cctagaggtgc aaaattgttg ggcgtggta acctaacaga tatagaacca agcagaacag 1980 caatatggca aagtcttga tcaaatacca ccgagcgcat atattcatt attgcggact 2040 ttcaacgtac tttatctatc acaacagaga ttccagctcg gttcggagac cttcgattgg 2100 cagaggtcgc gcagacctga ttggttcaga cgcagcacc gctctgagac ttgcaacccc 2160 tacctaaatt atatgcagaa tgcatacggc gcatggggcc acatgacgaa gttatgtttg 2220 ctttttggtt tggtgttcgg tcttattcaa cgtcgtttgc gtctcagttt tcggttgtgg 2280 caatgacaatg ttcaaggtga g

<210> 826 <211> 5418 <212> DNA

<213> Aspergillus nidulans

<400> 826

cgggcctccg tgagaggatt tccggtcccg tgggatgtca aagccggtcg aaattcatta 60 aagaacgggc taaagaactt caagttttta gagtaggccg ccggtcccgc agagcacagc aagagattgt ttatgagaag ccccggagca gccgcaagaa cgttgattat cgcattatcc 180 gcccggattt ggtctggccg atagaggagc cggacaatga agtcaacgag tccccttcgc 300 gtcgaggccg tggtggaggt ggcagtacct ggcagcgctc actatttcca acctatggac cetteggagg eggeggeeg tetgegatte tgggaceace aggageacat getgeaactg 360 gaggagttga tagcgacagt agcgatgacg agggaatgca gcatcctaaa gggtcaatat 420 ctggacctgc tggcggcaac ctgccacttc ctggagtctt tggagcgcaa acccacagta 480 ccgacgcggt gcaaggccac tctggcacac cggcaaacct aggccgcgtc aaagacaagc 540 aggcactage egatgeagat eegetgggeg tegacatgat agteaattte gataatgtag 600 gagggttgca aggccatatt gaccagttga aggagatggt gtctcttccg ctcctgtacc 660

720 cggagatett ccageggtte caeattgtge eteceegtgg tgttetettt eatggaeege caggaacggg taaaaccctg ctggccaggg ctttggcgaa cagtgtcagc tctgagggtc gcaaggtcac gttctacatg cggaagggag ctgatgcgct gagtaaatgg gttggagaag 840 900 ccgaaaggca acttcgtcta ctatttgaag aggctcgcaa aactcagccg agtatcatct tttttgatga gattgatggt aagttctaat cttattggaa ataatgtgtt gatgctgact 960 tttccaggat tggcacctgt ccgatcaagt aaacaggagc aaattcatgc gtcgattgtc 1020 tccactcttc tggcgttgat ggacggtatg gatggccgtg gtcaagtcat tgtcattgga 1080 gctacaaatc gtccggactc tattgaccct gctctccgcc gtcctggccg tttcgaccgg 1140 gagttetact tececetyee aaacaeegaa gytegtegty etatettaga tateeacaee 1200 aagggctggg atccaccact accaaattcg ataaaggacg aacttgcgga aatcacaaag 1260 ggttatggag gtgcagattt gcgggctctt tgcacggaag ccgcgctgaa tgcagtacag 1320 agaaggtacc ctcagatcta caagtcggat aagaagctct tgattgatcc cagaacgatt 1380 gaggttgcac ccaaggactt catgctggca atcaagaata taaccccttc ttcggagagg 1440 tcgacaggct caggtgcatc aaagttaccg aagacagttg aacctttact acgtcagcct 1500 ttggccgaac tcaagagtat acttttggag attettecae agegeaagag geteactget 1560 ctggaggagg cgcaatatga agattccgtc gagtcgtcga tgggcttcca acgcgagcag 1620 atgcagcaag aatttgagag gtcgcgggtt tttcgaccga ggttgttatt acggggcgct 1680 ctgggaatgg gtcagcagta cctggcgggt gctctgttac atcacttcga gggtcttcac 1740 gttcaagcat ttgatcttcc tacactactg agcgattcta ctagaacgcc tgaagcggct 1800 gtcatccagc tctttgctga agtaaaacga cataagccta gcgttatcta catcccaggc 1860 cttcagaatt ggtctcagac ggttggtcaa gctgtgatat caacgttcat gggccttcta 1920 eggteaatee tectactgae eetgteette taettggagt eettgagage tetgaagata 1980 ttgatgctac gctggtgaga aatctatttg gctactcgat gaaaaatatc ttcgagctct 2040 caccaccggg ccaggaggca cggtatgaat atttcgctaa agtgattgac ctcattaaag 2100 cttcgccttc tcatctcccc gaccctgaca atcggaagaa gagacagctt gaagagttgg 2160 aagtagegee geegegege geegeeagag aageeteege tetegaaaga ggagetgaaa 2220 gctcagaaga agaaagatta ccagacacta aacctcctca agattcgaat tcaaccgatc 2280

atggatcaaa tcaaaaagta caagcggttt aggacaggtg tcattgatga gtctcaaatt 2340 cggtatctgt gggaagaaga agacccgaac attgtcacaa gcgatttgcc catcgaacag 2400 cggacaacat tccgaccgtt tgaaaaggcg caggataagc acggagttcc gggtcttcgg 2460 gagacagtgt ccggcaaatt tttctacaac ttagagattg tgactatcga gaagcggctt 2520 tctaacggat attacaagcg acccaaggac ttcttggcgg atatcaaacg tatagccaag 2580 gatgcacggc agctaaatga ccaggaacgt ttgctccgcg cgaacgaact tctatccaac 2640 gttgaggttg atatcgctac cattgagcaa acggaaccgg cgctagtggc tgaatgtgag 2700 aatgtttacc ttcgggagct ggagcgggag aagatcgcaa tagagaaggc gaagaaggct 2760 caagaggagg aggacgcaat cgcatacggc gccgcaaacc gggtcccgcg tgggaataca 2820 gatteggace caaegagtgg acceptggtg ctaggegeet cattteeaga tettggteet 2880 caaatccccg gccggcctgt cacgcctaca cgccggtcaa ctgtgagttt tatgacaaat 2940 ggatatcacc gcggcgatgg gtcggatttg aacgattcga atgcaactaa tggctcgcac 3000 gaaactcacc ctgatggcga tggggacaca tacatgacaa actctgacca gtcggctgga 3060 agggacacgc aggtaagctc gttcggacca tctgcccagc ccaaaccggc ctactccatg 3120 accgccccct ctcagcaggt caggcgagaa tcgggcctat cgagcttctc gcagagaggg 3180 cccatgaccc ccatggctcc gggatcccaa ccagcagact acatcaatga agcctcgaca 3240 acgcaaacga cgtcggacaa gaagtcgtca gagcagtcct ctcacccgca tcactacacc 3300 cagageeeeg ttgteateea eggeaegega caagattace eggaeettae ettgtateee 3360 gaccgtgttt cgcaggagga gcatctccct gatacccagc aaggcgacag cagtcagccg 3420 teteegeece agetaegega ateteaggtt gtgegegetg aagteeaate acageetaaa 3480 tegeageege etgtaeetet tttegaegee getteeagae aaceaacege tetgeaagee 3540 cttctcaatg aagaggacga gtcgccgaaa ttgatcattg accacgagta cgtgcggaat 3600 ttgcataagg agatggcgca gcgcacgagt ggatgctctg tagagcagct cgagcagatc 3660 aatteegege tgatggatgt getetggeat accegetgeg attggaaceg tageaaagtg 3720 gccgctggga ttcagcacgc gttcaatgat gtcctcgagg acatgcaggc cgtgcaggaa 3780 attgggccga tcagtcagaa gacgcaggat cagctccact cgatgtatta gactctgttc 3840 acctcacctg ccgtacctgc agcactacgt acctactacc ccctcctcta ccttttttgc 3900

acgcatttgg ttttctattg gcagcagcaa gcatggactg tgtaatgaga taaatggcgg 3960 atattcagac ttgcttttcg ttcttttatg cccttatctg tagtctccta tcgttccctt 4020 ttatacctcg tttctgttct agggttttct tggtgttgcg tcagcttgtc cagagcaatg 4080 gaccgcttca attccttcaa ttttttcatg catctacgtg tattatcaga aaaacgaatc 4140 taaatattta gatacctatg ttctatacta ttcctgagta tagtcgacgc tcatggcttt 4200 ttatgactgc cgtgactaat cagttaatcc cgctccctag gaacgcttcc tttgagatcc 4260 ttgccgccac ccgcaactcg caatcgccct cggcccagag tctctctagg ctatcgtcaa 4320 acatcaaact ggtggaagta aatctggacg acccagcagc aatatttcat aacgcacacc 4380 gcgctgaaca gatacccatt tggggtgtct tcagtgtcca ggtcagtagc ctgtgaacac 4440 cctagacaca acgaaatcga cgcgagctga caaaagccta gcaggtcgcc attggcaatg 4500 aatccctaga agaaactcaa gggaaggcgt tgatcgacga gtctctcaag caaatgtcaa 4560 gtccttcgtg cagacctccg ttgatagagg cggcgaggca aagtcgccta acaaccctac 4620 ccgcatcccg cactttattc acaagcataa catcgagcac cacctcatac agcaggccaa 4680 ggtgaatgat atgcagtggc tcatcctccg ccctaccgcg ttctacgaaa accttgtccc 4740 ccgcttcttt ggcataatct ttgcgacctg cttcaagatg gcgctgaagg gaaagcctct 4800 acagctagtg gctacagcgg cattggatct ttgctgctga ggggttctga accccaagaa 4860 aaacgccggg tagggggcct attaattaca ctcggccagc ttacacttta ttcactttgg 4920 aggatttttg tgccaaaatt tttcctgacc ttaatatcca cctattttcg gacctatttg 4980 tttatttatg cttgattttt tatcaataaa tcattttatt cctaagccgt tttttacaat 5040 tgcttttcct cttttactac ttctcttctt ttaatctatt acqtttttcc gttttatata 5100 ccgtcttcat cattctactc atttctacat ctcatccata tctcccctct atctttctcc 5160 tttactatct cctctctcc ttaaaacact ttccacttct ccttctcaac atcattttcc 5220 actitictic attectiaat egaceaacat actetictit ettetetet etcatigiee 5280 ttactctcta cactaattta ttatccctat ttccttttcc tctatacccc actttattgt 5340 cettttetet ttecaccaet eteatetete tactateett atattacett caegegttte 5400 ttctcttcta atcctcaa 5418

<210> 827 <211> 2466 <212> DNA <213> Aspergillus nidulans

<400> 827

tattcagctg cggaagcggc ggctttagtg tttccacgaa ctttggcagc tctggtgcag 60 gtagtctttt tggcggtcaa agttcggcgt cgtctcagac tccatcaaaa cccttgttcg gagcgaagcc aaccgagcaa acaacctctg catcgccttc tctgtttggc gcctcctctt ccgcccagcc tgcttcctcg actcctgccg cgtcgtcttt cagttctgca ccgttgacaa 240 ctggcaatac ctcatcctcg ctcttcagta catcgactcc gaaacctgcg acaacgggac 300 aaaatctctt ccaacctact acaagtctat ttggtgcatc tacttcttcc accgcgcaaa 360 aaccctccga ggaaaaggcc caggaaggga caaaggcaaa ccagtctact tcaacccagc categiticag citticcict accacaactg gegegicatt attetecagt aacgeaageg 480 gggctccagc ccagtccact ggtccgtcgc agcctgtatc aacagggagt ttgttcgctc 540 ccgaacctgc gtctactgaa caagaaaagc cgaagcctgc tgaaggaaat ccttttagta gtttattcgt ccccaagcca gcaaatgcgg aaagtcctaa gcctgagcag aaatcgttgc 660 cttcctcaag cccatttgct ccgaagcctg tgtctagcga aggcgcgaag acgagcgagc 720 ageogaagae atetaceeet geategeeet tetetgetee aactettggt geageatett 780 cgcctgtatc tcagtctact gctttttcaa cttcagcacc acagacaagc tcttcaattt ctgccttctc ccccactaca accccgcaga atcccttcaa gaccaatgga gttaagccag ctggcataaa ttcgccagtg tcgtctacta ctagtagttc ggctttgagc tttgataagc 960 ttcaacctgc gaacatgcca tccggcctgg ataagggtac caaagaagaa gtggaaactg 1020 ttcatcgtgt tcgcttgcta aacgcctgtt tccagcgcga agttgcaaag ctggatgcta 1080 ccaccaacag cttcgatcaa ctgatgcagt tttacctgcg cgttcgtgag acaattggtg 1140 ctccggttga atgggcgggt accaagcgca aagcttctga tagtgataac acggttgagc 1200 cttctaggaa ggctgcgaca ttcggcaacg gaaacttggc ctccagcgct gcttcaccgg 1260 acaccacgac ytcgtcgaag cttttcagtg gcagtcaaaa cgcaccttcg accagtaaca 1320 agagaaaggc gactggggat gatgatagcg atgcatcctc gcctgcgaag cgtgtagatg 1380 gtgactccgc aactgccaac attttcgcaa actctttctc aaggtccaaa accattgagt 1440

ccaataaacc agcaggcact ccatctccca agaaacttga tgctcctgtc ctcaaaccat 1500 ctaccccaga gtccatcaaa cctagccttt tctccacaac accaaaatca tcgcctccta 1560 agctggcatt ttccgcatcc tcggctccca aagagtcttc agcatcaagt gcaacttcct 1620 ctcaatatat geetgettte aaaceegett ttaetgegte ageaageggt acceetteee 1680 caagteettt egtegteaaa getteaggtg atgeaggeee tagtaettet gegeeteete 1740 tagctattcc caaattcggc tctggtggcc ctatcaactt tatgtctcag ttcaaagctc 1800 aggctgagaa gaacgctgaa aaggagaagg aaaaacgcaa ggcggaagag tttgactccg 1860 acgaagatga tgaagcagag tgggaacgca aagacgccga aaagcagcga aagaaacgtg 1920 aggaacttga agcgcaacag aaccgacgcg ctaaattcgt tcccggtcaa ggattctctt 1980 ttgaaaattc agctacagaa gaggaaaaat cgaacacgag cgctgcctcg tcagtcttgg 2040 attctaaacc aaactccttt tcaagctcta gcaacatatt cggtcatttg tctgcaacac 2100 catctgaaag cggggagaat gagcacgatg ccgctgacga cacggaggaa gactctgtta 2160 ccggtgatga tcccgttaga gaatcctctt ctgcgccgac agaagacctt cacgcaagtc 2220 gagetgatte caagataaac agtaeggeat eegeeeceag aageagtgat gaggaegatt 2280 ctacaaagga tttgaagtag tcaaaccagg cgggcaactc cgaacaacac ggcgctgaag 2340 acggaagctc aggtggcaaa agcatgtttg atcgcgtgga gtataataag gacggaaagc 2400 cgaagcgccg gggtgaccac gctaaaacaa tgcttccgcg ctgcgctact ggtcatggaa 2460 gggggg 2466

<210> 828

<211> 3036

<212> DNA

<213> Aspergillus nidulans

<400> 828

ccctataagg tgcaatgtct tggcatcaac cgcttggcat gcgtaacgat ccacttaccc 60
aggtacagga tgataatcac aggaacaaat cgaaagaagg ctttggtcta aaacaggaga 120
aatcagcctt actgcgttgg cgccggggcg ggtaaggtac catctctttg agaacgggaa 180
tctattgcaa gtctgtcaat tcgtgcaagg ctttcacgc ggcataaaca tacaagactt 240
ccaaagtagg gattcaagct gacgagggaa aatatcctgt ttcagattgt tattttctg 300

ttctcgatac taaagatgct ctggtgcaaa catgccttgg tacgagaaac agtgcctcca 360 aagaaagtat gtcaaacgac aggtctgtga tgtattcgtc ctttttacct aagccgatag ttcctaggca gggtcttcag taaagaatcc atagagcagg cacaaaagac tgcatgaagc 480 tacaatgcga ggtatttgga tgtgggagct gattgagtgc gatcggtatc gttggcactc 540 tgagcagttt caacaaaata gtaaacttac ttgtcacgac aaatacaagt ccagtcccaa 600 ttatgcacag atcccagagg ttccagaagg tcatctggta gaaaagcatg ccagagtcta 660 cgaggccgct cagctcatca taagcgaaag ctgcaatcca gacgtataat atggcttcga 720 agttcccaac tctcgctggg tttcgttcca gcaggactgc atagtagaga aggaggaagg 780 agacaaagaa cccagcttcg aaagccttcc gatacacagg aacacggaga cgagaataag 840 gatcagccgt cctgttatgc tcgtgagtac atctgaggct tgattttgga caagaatgag gggcctacct tttgttgaag cgctgaggtt tcttggtgga gtggacactc agcgagtccc aaaagactat ttctccgttc caaatgtcat tcaccacttt ctgcaccacc ttctgactga 1020 gaaacttett tgcgtgggcg atagtagcaa tetegagtge atteaggeca aggaacatgg 1080 agaacccatc tccatctcca tcagggaagt agttgttagt ctccagatgt tcactaccaa 1140 aatagteete gtgttgtetg ttteteteta aaagttgtga tegagtagtg gagetggaca 1200 gcaacggcgt atgctcatct ccgggcaaat tattctcaac catacaagtt gcacggccgc 1260 ctataccage cteggeagag teaatactge tegtgtattg ggttgggggt ttaageteet 1320 caaggagata ctcgatcaat tcgcgttcat tgagatggca gaggaactgc caagccacat 1380 actegeacge atatectete gtttegtttt ggeeategte gtgeteagea aacttatega 1440 acctccactt gaggatcctg tatcgcagac tcagaaacac agtcaaggtg gagcggcatt 1500 tcccaactta catcaatgca ggcacaatac gaggattatg agaatcttct gccaatgaat 1560 ttaccagtgc tcgcagacgt gggtctggag ccagttttaa ctcctcgaat ttatacaaac 1620 ctctgatata gacgatatca tgaaactggc caaagcgagt tagctcagca cgggcacagc 1680 gatectagat catgitacet atgeaactte tgaaccacat cgacgagagg etegteatea 1740 tcaataatcg ggatttcaac acggtcattt atcgacggag ctagcgatgc catggactcg 1800 tgcaacatta tgggagatga atgtctaacc cccagaagac ttatccaact ctcagccgac 1860 tcaggggtct accacaagtt gggaataggt ttggcttcta gtactgtata ctgaatggcg 1920

ataactegat egeeegtett taacagttga gaaateagaa gtetgtettg ttgagageag 1980 tgcctacatt tacggtctgg cagctagtta gatgctatag gcaggcttaa aaggacttgg 2040 ggccaggaat gcgcacctgg gcccaggtac ggacagcagt gacctagcga ttttggagct 2100 gcttattggt ggagatgatt caacettegt gcaaagtaag cegtetatag gtcaggagga 2160 gaaagagata tagtcgcatt caagaagctc tgcacatcaa ttttgccaaa tacacttcat 2220 aatgaactcc aagacattaa gcaaagagaa acactaaagg tggtcgtgca ctacctagaa 2280 tattgaatgg aagatggcca aagagataag ccggccttca ccgcctttct gccatgtgat 2340 gtcgcggcca cccgtctctg gaccctctta ggtgccgtac gcgtcctctg tcctccaatt 2400 gtgatctctg atcgtacagg tcaggtctca tcggagatag ttcgtgggat aatcatctgg 2460 gacgccgcga cactatgggt caaggctact cccttacgac cctctctgcg ggttcggcgg 2580 ggatcgatat ttccgagctg tccgacctga catatgagaa atctattggt ggqccqccqq 2640 ttcatgaaga gttttcgagc aagcaaaaag aatgcttatt ctttgtaagg tatcatgaac 2700 cttacccagt tgaagettgg ccctatgtaa getttateee tatgettaet ggttttetee 2760 ataccaagtt taaaccttac agggaaccag cttttataat ttcaatgggt ggaatataaa 2820 aacctcaaca gaccggggga cccttctctt caacccaccc cttttttata gaggaagagc 2880 gccctttcta taaacaatat tgtataaccc ctccccacac aaaaaaagag ttgttccttc 2940 ctcttccccc ctctgggact cctccggtgt tttcccqccq ttcaaaatat attqtcqqqa 3000 gggtttatat ttttcttttt ttcggatact cttttt 3036

<210> 829 <211> 4283 <212> DNA

<213> Aspergillus nidulans

<400> 829

catattaccc tagggctatg ctggcagcag cggagtatca ggagccgcag atgggcgtgc 60 cctcatcttc acacgacaat atgccagaaa ctgcatgccc aagatgccta agaaccagtc 120 agatcagctt tatccactca gcgcttgttg tcctgagtgc gtcaaccact gactgtctat 180 caatatatct accagttctt aacctcacgt tgcaattgcc agagcaagca gttgattccc 240

ggcctacate catecettaa ettetgtaat geaceaattt ttteateete aagateegga tatgtcatac aaacagaaaa gggtggaaga agccccggcc acaactgcca agagtcaagg gaaagttett ettgeegata eeateggaeg ategetatat etaegeeaaa teeaaetgga 420 tatatataat tcatgttcag agcctctgct tatttcagaa cctggccgac tattcggcag 480 caagtegeet geateteagt ggetaetagt geetageeag cateteeetg ggagegeeae 540 aacttcgtcc gagacactta cgaccgagac ccgcgatgcc actctctgca ataacagccc 600 agcgccgtcg aaaagcgacc gtcacacctc tacagaatct atcgcgtcac gagctcggat 660 agttagtttg aaaggcacgg ctacggagca agacgctgag tggcttgcac ttgaatacgg 720 tcttccctca cagatggggc tgctggaccc tagctattca atattcataa acgagcaaaa 780 aagcggtggg gtatgcttca agattttgac aaggtggccg tcgtattagg tgaccccta 840 tgccatgtaa cgcagatttc tgctctcatg gccgaattca ggctctatcg gcatcgaaaa 900 cgctgggggg tctcatttct aggtgctggc aaagggctgg tcgagtattc tacgtccgcg 960 aaagaaggaa cgtcgacgat actccagttt ggacacaatc gagttctgaa tcctctaacg 1020 aacgaggtca tccacgagac ctgtggcaag cgaatcctaa cgcagaaccg acaactcctc 1080 aatccaagca agggagacct ctcgcttgag atctacactc catctgccca aaggacggac 1140 tacaggctgg aatgggaatt gagtgcaatt taccacgact ggtgcatagc ccgcaacgct 1200 accaagaagc cacaagcctt cataacagaa tatgatccct tcctcatacc aacactgatg 1260 acctacattt acgcgcggga tagtcacggc gcagtcctcg ggtttgcggc cctccgctgg 1320 gtggtatgaa aggcggctac cacgttgacc cgtgtatcgc agcacccggg gccagaaagg 1380 gggtaacaga ccttcttctt ttcgcgtcga tggcatacct acggcaacaa ggagtttcat 1440 atctaagcgt agggtatgag cettetgagt cattggeagg gatateaggg ttaeaaggee 1500 ctcttgcacc attgacggac cggctctatc agttcacatt ccaccggctt ccaatttcag 1560 ggaagagagc gtattttgac aagtttaggc ctgatgatgc acagagcgaa ccggtttact 1620 tgatattccc ttcaaagctg ccgcgtccac gagatgtttt ggccgtcgcc catgccgcta 1680 atatcaggct tegeoggetg gtattttacg gcagcectag gtegtgatat aatgattegt 1740 tgtcaatcca ttccttcgtt ccctttcctt tgttgtctta cccttcctcc cccctctata 1800 tagcagacga tgatatttaa acccaccagc ccgctcgctt tcttgtgtca tggtaatttg 1860

teggeteate ecetaatact actetgtatg ttetettatg ttggtetaaa gteggeteat 1920 actagggcaa caatgccaca tttaccacaa gctggtctca tcatcgttgc gaagccacaa 1980 ccatctatct gtgcaatcaa cacaatccca cgaatattgc aacgaaaaca tcgtccgtaa 2040 cactggtgag cctattattc gcgtgcgcct gttccaatgc gttccagaca ggtgcatata 2100 tatacaacgg ctgaacagta ccataattct cgtcaaccgc acacactgtt ggcggtatta 2160 tgacttgaac tttcggcttt gaggcatata agaaggcgcc aatattgatg actgcttcat 2220 ggtcttcagc acacggggac ggttcctacc tgaataccac tgcacagttg tctcctcttg 2280 ccataccact tggtgacctt ctttctttca cccccacctg tctttctctc tgctttctct 2340 attctacaca aacattgcgg ccaataaacc gtaatagttc gttgcgtgct ggattccagt 2460 tacaagcatt accctaacat attaacagcc ggtttgagaa aagggagtgc gctttgcagg 2520 ttttcatagt atattcgata ttctagctga tttatatcta gtccatacct cgaggctggc 2580 atgtcacctg actectagag tgeteegeta tetgeaggga eegegtaeae eeeceteete 2640 ccacacccca taccctcccc acttccattg ccacccttct tggcaggcaa caccaacctc 2700 atctccccac gaccaatctt tcaatctcgc agctttatag ttgcaaccag tatccgatct 2760 ctaacacgga ttctgcttgt ctacacacct ctgggcgacc atgacacagc ctgaggatcc 2820 actcactccc gggctttcca acaatgacct ctggcggcta atccgacgtt tcgacaaggt 2880 acctaccetg etgegateaa aaaaatagaa aaaaateeee aaaaattaet egteeaatae 2940 taacatcgcg cagcaagtct cccatgttga agcaattccc tgcacggact ctcaccagct 3000 tgacctcaac cgcgctgccg acgaacagtt tcctgcatcc aaactgcaga aaacaatcga 3060 gcgcttctac gtctctgttc ttgtcaaagt cggtctcttc atcagtcacg ttaaccatct 3120 acgatcgtgg gatgatcccc gtaggacggg ggtctttggc gctgtaagta gactgacgtc 3180 acgtgtctcc ggtatgggct aatgtgttcg tctaggtata tctcatagca tggctgtgcg 3240 acticateat acceptate ageagtatee tictegetat gataticage cettegatic 3300 getegtetet titeceteeg atecetgaga gtgagttgea gaegeaggga eagecetett 3360 caagggagga aagtactctc catgtccatg taccgccagt aaacgagggg gaagccgagg 3420 atgaagetge ggatettgta aaeggeatea agtettegat eeaaeaggat gegeaagaag 3480

ccatcgggat cccgcctggt attgatggtt tagaacccga agtcgtggtc gcatcagata 3540 ccgccagcgc cgatgagccg gggaaggcaa agacttctcc ggcgatcaga ataactctat 3600 gcgtgatcag tgacataaca gatctttgcg agaggttctc caagtatgta tcctcgtaga 3660 tgtgactagg ggattcctga cataaatgta tagccttctc tcgcctactc cgccattcag 3720 cctgatcgcg cctcgtctgc agctggctgc aatactcatg ctcatattcc tggcttcact 3780 atcagttca agccacttga tcgtgaagac atcctcctg gcaattgggt ttgggttctt 3840 tggtgatccg gttctcagtc gagccatgga ctttctgaat accaagattc cgaactggaa 3900 gacttatctg gatattgaaa agtttgttcc caaatttgat tctttttcc agattgtat 3960 ctaacaaccg gtgtaggaca ctcctcaaag gcgttccaac agatgctcaa cttaccttga 4020 ccctgctgcg catcgggaa ctgaactcaa gcccactccc agttccgcc cggtcagact 4080 cggcctcaag cccagagcag tctccactga agctcttccg ccggaaatct tccaagacag 4140 ttgaaactgg gtctgatgca tcggatgcgg tcgagtctaa caagagtcaa accgagaccg 4200 gaacggattc atcagaggga gaatccacga agaaatcgaa agccaagaaa tggcttcgca 4260 tactaaaatat gcgcgcgggc tca

<210> 830 <211> 3550

<212> DNA

<213> Aspergillus nidulans

<400> 830

aagcttagac gcgaatcagt ttctgcgcgc cggtccgcgc gttctggatg accacctcga 60 ecceggitte glegegggtg gleeggaegg cealegagte glagaagatg tigtitaeet cgtcaatgta gttcgcagcc ttgttgaaaa gtacgtccgt cccatttttg gggcggatgt 180 accegecgtt gaggagggeg tegatgtgeg gaatgecaaa gtactgaate acatagaggg 240 tgggcctgtc gagcatgttg cctacattct ccgcgaaggt aaatattagg tcaactgcgc 300 cccatagcgc gtacttgtca acaaattccc gaaacgggcg cacgaggatc tcagggacct 360 cctcgggcag atcatacagc ccttgcgcca gataattgaa ctgctcgatc gcgccgcggt 420 acagcaatgc tgcggccgtg gtggtaagca gctcgttacc aggcaggacg cgctcgccgg 480 tccgaaaatt gacgtgctgg gtcagaatgg cgcctggcag gagaggttcg tagtccacat 540

ctagctgcgc gaagaagtcc ttggtgatct tgttattgaa gtacccctcg accccgtagt 600 tgacataatc cccactgggc aggtagagcg tctccgcgtg gccgcccagc ttacttttt 660 gctcaacaag ggcgacagtg tagccctgtt cgcggagctg gacagccgca aaggtgcccg 720 ttgcgccccc gccgaggatc accacatcgc ggtcgatcgt gtcttgggca ttgaaagctg 780 cygttgcggc cgtgctcagc agcgtcacgg agagaagggc gccgagacgc atggcggagg 840 gtatgcgtgt gcactgtcgg gctcacagag tgcgagtcca tcgcccttaa gaattttttg 900 ggggtettta aatttegggg ggttetettt ggggeataee gtegattttg ggtteettet 960 ggcgcaagta tcagcggctc ccatttgccg acaccggtgg agtcgtcgcc tggggatcag 1020 ccaatttgca ttccaagagc agcgatcgtc gagggaatcg atagtgtgtg ggccagccag 1080 ategetgege etgtgeetga egetetegge gtegegeetg geaagggeta atgtegttea 1140 cgttcatgga tcatttgtcg tacataatgg gctgtatgag attggaacag acagcgttgt 1200 ctgcaagaca ttcgataaga tgatgcgaat gaagatgcaa gcaagggagg accagttcag 1260 gcccaaagac atgataaaaa gggcattgta tattcagggt agaataactg cacatcctaa 1320 aagcgcccat accctgtctc aagcagtctc aaagtcaatt caacgtctca taatgcatgt 1380 ctactggtct aggcctggga cgggggggga cgaaggccgc taccatcttg tcaggagtga 1440 ggctgaccga tatacattgt aatagcaacc aaggcagccg tagtccaaag tttttatttt 1500 tttctccttt tttttctcgc tgtttgttgt tgttgctgca tgggtacctt ggatatttaa 1560 ggcacatcgg ctcttaggca acaggggagt tcggcacttt aaagagcagc ggaaatcacg 1620 atacggtcta gcgatggcgt atactctcct gacttaccga gactgcagct atcatgcacc 1680 agtcagttat agggttagat cttcttgagt gcacgcggat agtctgtgtt agccaagcaa 1740 tatattgact gtgcgtgcca gccagcttgc cgctcgtgaa agaggagaga cgagaaagta 1800 aagaaaaata ggagagcaaa tttacatccg ggcgaacgtt agctatctta ttgagcgaag 1860 tatattettt gttgttgaga gaaacaataa tttgagtagg aacetggegg tgeetagaag 1920 tactgggcat aaaggcagcg cacggtaaca gagaagagag ggagaagggg catcacttgg 1980 accaaggaga acaggtgatg acattgagaa taccctagca tcccgaatca caaggcgtga 2040 gaactcatat ttctcttgag gtcaggcaac tgggagcgca gagtaacaag tttgcagaga 2100 ctggatctag tctgactaga gtgcatcatt ttgccgtgaa caatcagatc tacatagtga 2160

taccaageca tacgaagagt etcaaactag ggtacagaag geteatacag tagaagttet 2220 gtcaaggcca tgacggtgat ctaaccgccg ttacccacca agtccagcac agagaccagt 2280 gaccgtcgtc acccaaattc aattgacacg tcgtgttctc cttattcatc gtcgtcgcca 2340 ataatcqttt tatcagactc atagtcgtca tcttcgtcct cgtcctcgtt cggcctctgt 2400 agteteceet caggetettg acaeteaaaa cegteatget gegecagete gecatgetta 2460 taaaccgact tettggggta gaggeacagg tetegeacaa teteceggge agtgetaetg 2520 tetqeetttg eegacagagt gteeggtgee tteeeetgag eageaettta tggaaatagg 2580 gcaaacaacg cacatcgatg aacttetega gateetgate gagactgget aggteeteet 2640 teegttigtt attetetgta attagagett gttigegett aagaagitee tgtegggeet 2700 . gctcaagctt ctctcgctcc gcatgctcgt ggtttatccg cgcaaccatc aattcgtgct 2760 catctgactc teggtgeteg gggtgeaget ceaggaatte etceaeeggt attagaggaa 2820 gcgaccggta cttatgacta aaaatctcca gttagcaacg aaaatatctg agacttaaaa 2880 cggctgtggc atactcataa gactggcaag cggcaatttc ccctgtcagg tgtcgctgct 2940 cgtaatacag gttttgaagt tgcagatgta gccgatcgat ctcctgccgg gcctccgcag 3000 tacgctgctt tgtttctcga actcggaaaa ttgcatcacg attctgacct cggagctgag 3060 caagaagagc aaacaggtgc ttttgcaccg actgtggcga ttcggagagc tggtcggcgg 3120 cgcctgacgg gtccagcaat gacaatagct tgtgacagag atcccgagtc tcggcggcag 3180 tgttcaagac gggcaacaat gaggggtcgg aaatgatatc tctgatagca gtaccagcca 3240 tggcgagaaa gacgatgctg gcaggcaaag aggcaaacaa cgaatgacga tggcggataa 3300 aggcacttgg ggagccgttt ggcgggaggg cgggttgaac gtggaaagga cgcgccaacg 3360 gattggactg aagagacggg taaataggta gataatgcac ctgatcgatg atcgacaatg 3420 tcgccctacg gggaggaacc tttgctgtcg gcaaaggtcg ttagacaaga cgaaaatgaa 3480 cgtgaagaag aattgagcaa tggaggcttc cccactctct cggccttcta aggtccaatc 3540 3550 tccacggact

<210> 831 <211> 5165

<212> DNA

<213> Aspergillus nidulans

ccatactcgt ccgacgaaag ggaacggagg gagctgggca tgcggggcatc gtcgctggag 60 ggaaggacat ggacctggcc ttcggtgtgg aggctcggtc tttgtcctca tctttgaggg agtttttctc catagtgatc aagggacaag gtgaggagca ggtgcaggcg gccggtagtt 180 agageggatt gtettgaggg atggtgeaac teatgetggg ageaggetga aetatatgee 240 tgtcgttatc agtatgtccc tgcagctatc ttccccagat tgacggtgtg gagacaaaga 300 taateggeaa ttgaeegaet eeaaetagte aetateegtg gatgattagt aeageaggaa 360 tgaagtetag accagagaca gttagggetg gaggagetee teeegaggee etgeggggeg 420 atacgacatg ctcctccatt tgcgcaaaac atacacccat accaagtata tagatagcta 480 gaactgagat agggatccta agcatatgtt cattattagc tctaccaaaa tctctcttta 540 cctaaccaag ccatctccaa aatgtcccat cccactcctc tgaccaccac aatccgcaat 600 ccccgtctgc gcctgcttaa caaattgcgc cgaaatgaat acccccttat gacattcatg 660 gctttgccat ctgtgcgcat tgcccagatc ctctcactca ccggcctaga cggtataatc atcgattgcg aacacggcca catctccgac gacagcatgc acaacgccgt cgccgcaatc 780 teegeectag gegteteece tataattege ateegeggge eagegeatga tateataaaa 840 cgtgcgctag atacaggcgc gcacgggatc atggtccctc aaatcaacaa cgcggatgaa 900 gegagggega tegtggette tteaaagtte eegecteagg ggeteegegg teagggetee 960 gcattcccgg cgatagggca cggccttacg acacctgaat acatgaaatc cgcaaatgag 1020 acgattatca caatgatcca gattgagaca aaagacggag tcaagaatgt cgaggagata 1080 tgtgcggtgg aaggggtgga tatggtgttc atcgggccga atgatctggc gatgagtctg 1140 ttggggtatg tccctgctag aggggatgag cctgtgtttg ttgaggctgt agagaaggtc 1200 atttctgcgg cgagaaagta tggaaagtgg gcagggagga tggtcaatga tgggactatt 1260 gcgaaggccg agagggagag gttcgacacc gtcgcggtaa cgggggatac caaggcgatc 1320 acgaattggt atgtgaaaga gtttgatatc gctagatcgt agactacata gacttgctta 1380 atatgggtta ctgttttgtt cacaaaatca ctgtacgagt acgcttcaaa agtttgtaag 1440 cggacttcgt gaacgtcacc cgttcatgat agctcctcac tctcgcaatg tatgctttaa 1500 gtgttggtag atgatataat gtcgacagaa gaatatccaa gacagtttac agctggttat 1560

agagtaagtt tggtcacaaa atggtaggta tatacctgca tgagagcaga gaacaagcgt 1620 ctcacaacaa gatactcatt tgctgtctct gcagttgccc ggattaaatg ccaacagaag 1680 gcttccctat cgcgcattta tcctacttaa accagcacat tcattccttt ctgtatccat 1740 tccattctcc acagctacta acattagaag tcgaaagtcg ataataaatc gtacccgtta 1800 gatttaagga ctaataatta aagtctatac gtatctaaac ctgcgcaatg cactcaatct 1860 caataacggt tecetegeee ggaggeageg cetggagaea agatettgae ggeategget 1920 tgggcagaaa ctcaatgtag acctcgttca tggccgcaaa gtccttcata tcggcgaggt 1980 aaacgttgta tttcaccacc tgttccaggg acgacccaga gagctcgagg acttctttta 2040 tgttttggag aacggtgcgc tggctacata tcagttgggg tattggagag ggtagtgacg 2100 ataaggcgta cagttgcctg cttgatttcg cctgtggcgg tttgaccggc aaggaagacg 2160 aggccgggaa ctttggttgc tgggcctgtt gaaacaaaat tagagagtgc tagagactga 2220 atgcgactet gttgtaagtt gcgtacagtt gtgaggettg agaggaaatt tetegetgga 2280 gatgagttgg cgtgacattt tgatgaaact cagttatggc tatgatggtg acatgaagag 2340 aaaaggatcc ggtgtacata cttccctctc tttaaatcga tcctctagca atttccatgg 2400 tgagtttttg gaggagetet aatgaceagg gtgeagggge tgeeetggga ggageteete 2460 ccaccctcct cccaccctcc tcactggctc ctcctccacc ctaactacta tctcgctaga 2520 taggettetg aacggetatg tagaggaget etceaaaagt atceaeteea aatceaatea 2580 ggggcagcag attgttggag gtcgagttag ctcagcatcc ggagcgctgg aagccctaaa 2640 ccgccagcat ctggatctga ggagctcgcc tgatagatca tgagactgta caaggcgcct 2700 ctatagtccg ctcaaggtat ataaccatat ccaattgact tgctgtagta cgacttcggt 2760 ataccatcag ttattctcac cgtcagcacc agtccagcaa agtcaaacag tatagtttct 2820 cacaatgace cetgeaggee cetteaacee ceetteecee aateteeceg geaageeett 2880 cgtgccagaa tggaatccgc ctccggttac caagcagact gagagctttg ctaccctaaa 2940 gtcaatcgat ctgtccctcc tcgactctga agacccggtc gtggtcaacc gtctcattca 3000 acaggtcaag attgccatcc gcgacgacgg attcctattt ctcgagaatt acggtgtctc 3060 gcttgagcag ctgcaccgcc agtttgcgct cgcgcagtac ctctacaata acatgagcga 3120 agaagataag gagcgccttc tgtttgaccc cgagacaggg aggtggtcag ggtataagca 3180

tccgtacggg ttcaaggtaa tcctatatcc cgtctccact ctttataact cgaacatcca 3240 cttaactggg cttcgtctta tgatatagcg ccaccgcggc cccccagacg gaatcgaaca 3300 gtttaacttc tacacgcgcg agtggaacga ccccagccgc atcccgacgt gcttacaccc 3360 tttcatggac gaaatcaccg cgttctgcaa ctaccttacg caatcggtaa accgccgact 3420 getgaccete tteteacgeg tgetagaact teetgacgae tacetetggg aaaatgtgea 3480 gtcgcacgga ttccccacgg gggaaggcta cttccgccac gcgctgtttc ggcctgtgca 3540 gaaggagacg caggaagcgt ccaaagggct gcgtatgcac ggacacacag attttggact 3600 tacaacgete etetteteag taceggteag etgeetteag atetggggaa gggacgaaaa 3660 gtggtattat gtcccgtaca agcctggtgc tctagttatc aacatcggcg acacgctgga 3720 gattgtctcc ggtggacact tcaaagcgac caggcatcga gtgtataagc cgcctgccga 3780 tcagctaaat gaggagcgcc tgagtcttgt gctgttcaat agctcggtcg gggagttgcg 3840 gatgcagcct gcatatggta cgtttcgtcc ctttccgtat ctacagccca cgagcccgga 3900 atgeggatat gtttgetgae tgtgagaaeg egtagagtee eegeteatte aaegagaagg 3960 ctgcattgaa gagcaaggtg tgtacaagga gttcaagggt ctcacggaag caggccagct 4020. cgtcccgagc aaccgcgagt ggcgcgagat ccagatcgcc acggcaacag acccaacgga 4080 tacagatcat aacagaattg gagtccatca ggtactaatt gatgggaagg tgatgcatca 4140 gagagagtat atgggggtga aggtagtgtt gcctgtttag ttttaataag ccttcgttgt 4200 tggaaaacgt gatgtgcttt tatgggttct gccagcatca acatgtaact cattggaatt 4260 tggtatacag taactatgtt ctttatatct aaatcgcttc tgctctcctt tactctagct 4320 ctgcgtgatt tccgtcgcct cctcaagcca atatctgatt ctgattcctg ggcatggctc 4380 aaggcagatc atggttcaat catggaccca gcgccacgca ggttgagtgg cccatgagct 4440 gaatatgtct gagatctatg gttgtaccgt tttgtgtctg ggctactttg ctaatctctt 4500 tgcacatcat gattccttca gaatgtgtca tttactgttt cacacgtctg cgctagaagg 4560 cctaaccggc cgaagagaat ctcccacaag tggacaacat tggtactcga ctgggtccac 4620 gcgtgcgaac acatcccgcg atacatcaga gggggttgtg tcaatatagc gtcctattga 4680 tggctcattt aatccgcaaa cagagcgctg cagaagttac gggcacgggg ctggaaccag 4740 taatgtggga acttgccgcg tcgttaccga ggccgggtta cggctagcaa tataggactg 4800

acgggcacaa ttctcttt cggggccata tttctcttaa cttgttctgg cttccccttc 4860 cggtcatgct ggtcttactt gctatcatgt tatatttgga gaccatctat ttttgttgtg 4920 cttttccat ggcctgggcc cttgtggaca ggaagttggc gaagcacaaa acgagacact 4980 tcagatggag ctgacggcac acttgaggtt gaaaggtaga ccaatagaca ggccttatgt 5040 agttctgatc atgaggct ctaagaacaa atatgacggg ccccatgatc atacattaac 5100 taatctaaat ataacctgac aaacacctcg aaaagaactt tccatacatg acattttggc 5160 ttgct

<210> 832 <211> 2029 <212> DNA

ZIZZ

<213> Aspergillus nidulans

<400> 832

cagctttagt agtagcgctg ggggcctgtt tctacgaagc aacttgaagg aaacggtaca 60 acaaatttag tecaettgga cateegeeac tgtgtettta getetteate gaettaaaat tcactctcag ccggctttta atgagccatt caaggctatt gtttctaaca tagttctaag cacctagttt tgaaccaagc attcaaaggc tagtgctgtt tacgactcct gggctggaat 240 atggccggaa aggcttgagc agtctcctct tcgtaaacat agtcagctgc ggaacaggat 300 gcacttagtt acctcttcca atacagctgc ggagattcag tcttcgaata ttttcgtatg tttctcctat ttcttgaccc ctgacagaga atctcactcc acccattgca aataaaatga catcacgage egtggeagee ateaegtaca eegggettte ttatteaget ttgacataet taaaatgact tttacgtacc gttgagtatc cgtttcttca gcctctcctg cctgggcgat atacgctcat caaaagcatt ccctgcacct ctgacacact aggcatgact gatggctacc aagcgaggat tcggagcata tcagaggatg gctgttgctc cccatgagtt cttcaagccc 660 gcatgacaag tcggacctac aatacaacat ggttctgctc ggcaaacaga ctcaaggtgt 720 cacaggctat ggcctggatt ttggttgtcg gccatgccct caacccagtt ctaattaagg 780 tttctgcaac atctatatac ggcctcggaa ttgcggcctc gaagcttagg aaaggatatc cgtcctccta acttcgggaa aggagtccgt cggcttacag gtccgggaag tcagaaaggt 900 tgataaaggg aggaggaaga tatctgcgct tctatctttt gtttcttttc tctaagcttg 960

tgatactcgt gaatacagga cagccagtgg aaaacagtac tgcctacgcc cgttacacaa 1020 ggtccgcaga aggtcatcgt agatccacgg tacgaaaaag aacatatgat tctatcttaa 1080 caatcaggac aggccgtaaa tatcacgtta ggggactgcc tgacatctga aatttttgcg 1140 tttgcaggag gcctacctgg gatcgatgca gtgaactgct atccgctcaa aagagacgac 1200 tactgattac caaacaccgg tececetgee cageacteag egttgeteet gteetatega 1260 tgttgaggga tgtttcgtaa ctatcagatt tgctgcttcc agccttttcg ttttcatgat 1320 caagtacaac actgcctgat tgcagccact ttaagctcca tgtatggggt ccttggaggc 1380 acactggaag ttccctcatg cccgtgctca cggccattta ccgctattgt atgcctttga 1440 atttagaacg gttagtatgg ccggtgtcac tgcctattag atccccgttg acctgtgagg 1500 ctgggacttg gggtcgacga tgcgtttcag cgattcatca gcgatttcgc tgcctggaag 1560 ggccagttct ttgagcctct cctgtgatga ccaatgatct aagcagccaa tgatagtttt 1620 agttttagac ctagggaaag agctttaaaa atagcgacaa tactcccacg cttgatgttc 1680 tegeaaacaa acteegtagg tagaatgega tetegegtte ettggaactg aggettgege 1740 caaattgcat gaactgcacc acatttgatg ccagacccag ggccagaatt ttacgttggg 1800 gtctcccgca attatatgac ctacctgaat atgtttagga ttaaggtgaa ctgtggaact 1860 ccttctcctg gctctactat gaggactgtc aggcaagggc ttcctcggag acttgggaat 1920 ctatcgctgc aagaggccgg gtcgggcgcg aagctgcgtc aagttattga ggagagaga 1980 ttgtacttag cattgaggcc accatggggt ttgaatttat acgcagatg 2029

<210> 833

<211> 2763

<212> DNA

<213> Aspergillus nidulans

<400> 833

gtétactgaa ttgtacttct tccgcttcga ctttcgcttg atgagatcaa tcgcaatagg 60 ctccttgatt tcgacgtagt aatccggata cacacctttg tcaggtagcc gctcaaaatg 120 ccgaacttta agttgattac cggggccttt aagtttccgg atccccttta ggactgcttt 180 aattcttgct tccatcgggg tatcaacgcg cggagggcgg cctcgctttt ttctctgctc 240 aggatccgca gacttgctcg catcgtcttt tgcaccgtct cgtttaaaac ccgggcgagg 300

geogegette titetetgeg gecetegiea teggagieet cateategie ateateeteg teatettegt eetegtegte atetteetet ggtagaggat etggeteegg aattteacea agatetggaa gttcagette eteggeagtg atgatteeeg ettgaactaa tttetgaagt teggtaacaa aggeateett gateaegage gaateetegt atgeetggga atteggeegg 540 ttgtaggttt gcgcattgtg agggatctgt atcgaaggtg atgtcagacg cacatcgtga 600 660 cagegaegag catgataatg ttetagaetg etagettaee agggegeaat eeegeaegaa ctcagagacg cttttgtact cccgcttgtt gatcttctgc ttcaggatac taagcgccat 720 780 cggctccttg atgatatcgt aataatcggg aacattacgc ttgttgacgc tgcgatggaa aagtetegae gggteatgge caetgagaga tgaaaaggtg teageaeagg tttattttttg 840 cgacggcacg acccaggagc atcgcccttt gggctgtcgc gcgatcagtc tgacaaccac ttactctgct tctcgaacct catagatcgc aaggacaaca tccatcatat gtttccattg tteeteagtg aeggtaetgg tgacacegtt etgettgeea tegteeteaa ttgaetgaae 1020 gggctcctca ggagttggct gcgcttgcga cggttcggag gctttctcca tcgtattggc 1080 caccacgagc acggagacag cagcgcaagt cagagaggaa ccgttggaag tgctggtagt 1140 gtcttttcaa ttgattcttt ttacttgaag agtatccgaa cgtccagaag cacgcaacag 1200 caataggcag aggttcttcc agtgagtatg ctgactaagg tttgaattcg atactgtaag 1260 gtaccaggct gtatctgtac cgtatgctta cgatctctag tttgtacaat aactgagaat 1320 gaactgctca gccaacagaa ctacatatga tttgccatgc tcttgctgtt gattcgtgtt 1380 aagggcaggg taattagtga tagaatacaa aattccctgc gtggacccct gcatgatacc 1440 gccaaaatgt atagcagtgg ataccctcat agtgccattc atacttctgc agtctagcga 1500 tttagtagag agtttaggtc tcagtagata tatatattct atatgagtga ccttcaaaga 1560 actgtgcttg atgattcagt taccgatccc tttgcctcag gtatgttcat tatgtaggaa 1620 tggccttgta atgacttttg gtacagatta cttgggtcag tttggtactc agattttggg 1680 ctttccctca acgggtcctc tagagtcatc cattcgcctg gcatcaaagc agaccgattg 1740 gtaaccctgg cagcagctgt atgacggaga ggtctttgcg gatggccata gccaaatgcg 1800 gagaattgct ggaaattccc cgcactccca ctctatcacc ttcaactact tacttgttta 1860 caaagcaaaa gctcgcaatt ggcgcccttc cactcactgg aacacgccag gcaccctgat 1920

gaccagtage gecetaegge aeteaaegte caagggtgae caeagetgta aactatetea 1980 gaactettag etetggatte teacaactgg caactgetgg catettetge eccaetacee 2040 gacttgcgtc actgatette egeegtggeg eggtagttte attaategtt eetttateet 2100 tcatctctgt gttcacttat acttgcgcgg atctgtaaaa aatgagaata cgaatacgag 2160 gtccctctgg gcaatttgct attacccttg ctgaggacgc aacagttgga gacctccgaa 2220 acacgatcat tgagaagaca ggattgactg cctatgacgc gaagtacggc tatccgccga 2280 aaccgatatc gttggaacat gcagaaacag accagaaact tgtcgagctt gggattcaat 2340 tagaccggga gcagctcatt atctccgcca aagatggacc acctggacca tcaggaaaga 2400 aggaagacac ttcctcttat gccgggcaat catctccgaa actctcttta tcacgcaaac 2460 aaaatcccgt tgccgaggat acaccaaaag tcccctcgcc ggagcatggt ggtctattcg 2520 ttctacgtgt catgcccgat gacaactcgt gtctgtttcg cgcaataagc actgcactcc 2580 tgccaggcga ggacaccatg gttgaacttc gatcggcggt ggcgaaacga tcagaacaac 2640 ccgacgagta ctcctccgca gttttggagc agccacggat gactattgtc gttggatcaa 2700 gaatgagaca tcgtggggtg gtgcaatcga aataagcata ttgagcaaca ttttgatgtt 2760 gag 2763

<210> 834 <211> 4130 <212> DNA

<213> Aspergillus nidulans

<400> 834

agacataca ataaatatat gcccgaaata gtagcagagt ctctcttgct atttagcaag 60 agacatacag ttaccttgac tttggtctgc ctaaacgccg agtccgatga cgcagccggt 120 gctccgatga ttggctgggc ccccatgtcg ctccgcaacc agagcaagtc acccggggcc 180 gcctgagcag tgcatcatct taccaatcct gctcaacgcc atcatcctt ctccaactcc 240 ttcctatcac ctcgctgctc cttccatcat cgccctgatc gttattcgta aagctcattc 300 tttcgtttcc ttttcctcgc tcattttgcc tccttgccta tcatgaaggc ttccttgctc 360 acagcttctg tgctgctggg ctatgcctcc gccgaggttc acaagctcaa gctcaacaag 420 gttcccctta cagagcagtt cgtgagtata tgagctcaat catcttacga tatgatgttt 480

gtttatggct gtgactgatt cattcagatc acgcgcaaca ttgccgacca tgcaaatgcc ctaggccaga agtacatggg ccagttccag cagcatgtac ttgaggacga gccagtcaac gccatgcgcg gtcacgatgt gctggtcgac aatttcatga acgcccagtg tatgttctta 660 ggactctgcg tggctgagtg atactgattc ttgctagact tctccgaaat ccagctcggt 720 acccccctc agaccttcaa agttgtcctt gacacaggta gctccaacct atgggtgcca 780 tegteagagt gtggetetat egettgttae etgeaceaga agttegaete ttetgeeteg 840 tccacataca agaagaatgg tagtgaattt gccatcaagt acggatccgg cagcttgagc 900 ggattcgtgt ccagggacaa cctgcagatt ggcgacttga aggttaaggg acaagacttc 960 gccgaggcta ccagtgagcc cgggttggct tttgcatttg gccgttttga cggtatcctt 1020 ggcctcggat ttgacaccat ctccgtcaac aggatcgtcc ctccgtttta taacatgatc 1080 caccagggtc tgctcgatga gccggtcttt gctttctacc ttggtgatgc caacaaggat 1140 ggcgacagct ccgttgccac ctttggtggt attgacaagg atcattacga gggcgagctg 1200 atcaagatte ecettegeeg caaggeetae tgggaggttg acettgaege cattgetett 1260 ggcgatgagg ttgctgagct cgagaacact ggtgtcatcc tcgacaccgg tacctctcta 1320 attgctcttc cttccaacct cgctgagatg atgtgagtaa tatcattgcc gtttcacgcg 1380atctctagat actgacattg acatctaaaa gtaacaccga gatcggtgcc acaaagggtt 1440 tcactggcca gtataccatt gactgcgcca agcgcgactc tcttcctgac ctcactttta 1500 ctctgaccgg ccacaacttc accattggtc cttatgacta caccetcgag gtccagggtt 1560 cctgcatcag tgccttcatg ggcatggact tccccgagcc agttggccct cttgctatcc 1620 teggtgaege etttetaege aagtggtaea gegtatatga eettggeaae ggtgeegttg 1680 gtctcgccaa ggccaagtaa aggttaggaa actgtcgtta atgtgcctaa accgttcttg 1740 ttgggccgct tgcttccgct tgggtgcaaa gctcaatctg gacagctcgg cagctgtttc 1800 tgttatgatt tcaggatctg atttcgaggc tgagcagcac ctgtggacct tctcttccta 1860 atcgacgati cattgtgata ttgttgtggt tttatcgtta ctgaatttcg tccgagctag 1920 tggtgccttg acttcaagta gcatttagaa ctgtagtcag gaatggccat ttcaatcact 1980 agactgataa cagggtagct tctaccagta tttttaaaag aacccatccg taggtaaata 2040 agccgatttg attacctagg aatagaaagt cgagtctagg ctaggtctgg agcgccgccc 2100

cgcacggcg cccagtccag ctccgaccgc ctgcagaaac ctggttgttg ccttgccaaa 2160 caggetgeea accttgtttg agettttgga egageettga ggteaetege tgtttegtea 2220 ccccatcact gcgacctgcc tgattcacac ttccccttta ttatcctgtg ctaaaacacg 2280 cettatttga tttetgteet catactatee gtttgetgtg ggeagegaee agetettett 2340 tgattccagc tttcttctct gcatttcccc gtcgtgtgcg ctcatagcaa ccactcatgt 2400 acctcctctt ctcagcacaa ccttaaagcg aaataaatac atatcgtctc tgcctcgctt 2460 gegeeteget egegeaactg cetttateat eegegtttgt ttatagtggg egttggaggt 2520 tgggtgttgt ggcgacggct ctcgattctc catatcgacg ggcatggctc catagctgtg 2580 aagagteett teaaateaca ateaetgeeg caeageggte ttattegeet aetteaacta 2640 ttgtgattac ggagactaac gaaggagcgt aacgatacgc gagagaatca acagtcgata 2700 cagageatge ttettegttt accgecaage etceactace ceateacegt taegtegttg 2760 ttaaagcagc cgggtgatga ggtggagagg gacgaggcga tattctggta tgcgtatcaa 2820 actattgtta cagaaggaga tgggtgggga aacaaggttg atgtgaagcg gacatttccc 2880 actcgatttg aatccaccgt tgatggaaat attgtgcaat ggaagattag caagggtgat 2940 gttattgatg gaccgtaagc tgctcttata tccttacaga agcttcatgg atgctgactt 3000 gacagtgttg atgttgttga gatagatgag ccatgtgcgc acgaagtaca gtatggcggc 3060 ctttgcgccg agtgtggaaa agatatgact gagtaggtat cgagttatat gttagattat 3120 gaatttaget tactggttca gggcgacgta taataccgag gttccgggct ccatgcgtgc 3180 gcctattcag atgactcatg ataacaccgc gcttactgtg agcgaacggg aggctatacg 3240 cgtggaagaa gatgcaaaac gacgcctttt agcaaaccgg aaactctcgc ttgtagtcga 3300 cctcgaccaa acgataatcc acgcggcggt tgatcctact attggcgagt ggatggcgga 3360 caaggataat ccgaaccatg cagcagtgag cgatgtgcga gcgtttcagc tggtagatga 3420 cggtcctggg atgcgcggct gttggtacta tgttaagctg cgacccgggc tagaagagtt 3480 cttagagaat gtggccgaga tgtacgaact gcatatctac acgatgggaa ccagatcata 3540 tgcgcaagct attgccaata ttatagatcc ggatcggaag ctctttggtg atcgcatcct 3600 cagtcgtgac gagagcggga gcttatccgt caagaacctt catcggatct ttccagtgga 3660 cacaaagatg gttgttatca ttgacgaccg cggagatgtt tggcggtgga gccccaacct 3720

tattaaggtt ataccgtacg actttttgt cggtattggg gatatcaact cgagctttct 3780 acccaagaag caggagctgg aaactccagg ggaaaaccag gaacaaaacc caacgccacc 3840 aatacaacag caagtcaatg ggttggccga aaaatctgac gcgacagagc tatcaactct 3900 agagcagctg gtgactatgg ggggtgggga taacccaaga ctcctgcagg aacagaccga 3960 ggcgcaagac gtgacgatat tgcatcaggt tgaggatcgc ccgcttctac agaaacagaa 4020 agagctagac gctgaggatg aatcggcaga ttcgagggaa tccggcttga acgagtcgcg 4080 agattcggcg aagccacgcc atcatttgtt aattgacaac gaccaggaac 4130

<210> 835 <211> 1944 <212> DNA

<213> Aspergillus nidulans

<400> 835

ccggttcgac gagccctata caaagggaaa cgtctctcca ggtattttag cggtagcagc 60 aagtttcaca gagaagatgc gagaaaactc ccccagtcca tacaccacaa accccatgac gcccaagtca cccgagaagt ctctcattaa ggggcaattc cacaagcgta tgcagtcttt gcagaatact gatacgcgct cggagttctt gaactacgtg gaaagcaggt cgccagagcg cccctgcgc gcatcattct cggatcaaag cgcaaagccg ccagagaagg ctgtaaagtc tgagatatca ccgaatcagc agagttccga agatcttcca aatgtcctca tctctaaccg atacctctct aggccacttt ttggtgaaag cactcctccc tcagccacaa tgctcgcttt acagaatatg caactgccac ctcaagaggc gccacggacg aacgggcctg atgcttcttc 480 cgagcccaaa tcctcccagc ccaacagttt tgacttcttg tcaaaccaga tcctcagtct 540 cacagacatc gccagcagtc ttcaacgcga gatggcgcaa ctgagtcgac gaagcaaaga 600 taacgctacc gatttgatta gtctcaaagc tgcaacgaac gcccgagatg aagatattcg 660 gaaaagtett egtgatetgt etteaaaett ggetgeeaag tttetagatg etgataetge 720 780 cacaaggtgg gatctcagtg ctctcctggg ttctgaaaat gctattaacc agacggaacc ggatagttct ccgaactata agaagagtta ttctggaccg agaatgcaaa gccccagccc 840 900 cttctcgatg gaacgtgaat actgtgcttc ccccgggccc ttgacagacg gatccgccag tattgcgttg ttggagaagg tactacgaga aatggcgacg aaggaaggtc aggaaaagct

gctcgagctc atggacgaac tgaaatcccg tccagtctcc gatgattcta gcaagaacgg 1020 tgataattca atgactgaaa tgctggaaga aatcctcaac atagtgaagc aggactcagg 1080 agccagaget etegtgegag etggeaagee agageaagae etegaateea acatgggggt 1140 catcogccag caacagagtc ccgtgacaga tgagatgctg gatattttga agcgcgtaag 1200 aagcagcgtc attgaaggtg gtggtttgac aaatgaggtg aaacatctgg tgcgcgaact 1260 ccgaggcgag gtgctgggga tgggtagaaa tatcgccagc aggctggaag acgctgagcg 1320 ggctcgagcc attgaaaacg cgcccaaggg acctgggccc gaggaaatcg ccgaaatcgt 1380 cgaacagggc ctacaagaac ttcggaccca actagccgcc attatgaatg acagtaaaca 1440 ccagtcttca acactgagtg aggtccgggc cgccatgaac agctccgaga tctgctccgt 1500 cgtcaagaaa gccttggatg aatttggcat ggccgagctc cgtgataggc ctgagggagc 1560 taggatggac aaggaagata tcctcgaggc agtcagagaa gcctgggaaa cgtacaagcc 1620 tgagatagaa ttgcaaaact ttgggcttga gcgagatgag attctcgagt gtctcacaga 1680 gggtcttaag gcctaccagc cacagcatga gcaggccgct acttacgacc aggttttggc 1740 agctgttcaa gcaggtgtgc aacaatttga gcagcctcca tcaataacca aggacgaaat 1800 aatccaggtg atccaggaat ccattgagag tgtcgaacct cgctctttgg atggcgagca 1860 gctggctgca cttcgagatg agatactcaa tgcagtcact gattccatag cgacgcgaag 1920 gacaatgcaa aaaacgaaat gttg 1944

<210> 836

<211> 3522

<212> DNA

<213> Aspergillus nidulans

<400> 836

ataacgacag ccacatcgtc gtttcttgca tcccttgatc cggtgccatg actgtacgac 60
aactccatgc aaagtatcat ggccgctagc aagaagtcgg tgtactgaat tgaatttgga 120
aatagtctgt tcctgtacat caggccacca ggctgtattt cacggtacaa gtctgcatga 180
acacgtagga tctgtttcgc agcagtaatg cacaccaccc gcgagtatgc gtaccgcata 240
tttgtatgca cttctcccag gtaccttcga tgaagcacgc agcgagcctt ttcatataca 300
tttgccaggg tgaaccgctg gaatattaac tcgggaggat ctgcgatgca gtggttaatc 360

gggcgaatgt gatatgctgg gggtttgaga ctgttcgctt cctccaagag ccggtcaact tcgagtgttt cttcgtaggt tactggtttc cgcgagaatg ccatatccag aattttccca 480 aaaaccatca ttatacgcga cttagcgata atgtacgtca ttgcggtaat ttcgttcatc 540 gggcgtgatg gaggaagttg caccgtattt tggtcaaagt cttcatctaa taagttcctt 600 ggcagctccg tgtcaaattg ccagtcttgt agtgtccgtg gaacgccgac ctcaaaagaa 660 agcaaggcat caagctgaca gagaaatacc catgcgcgcc gtcgcatctc tccgtcgaaa 720 geggatatag etgggaactg etgeggatea eggtgatage eacttegeat ggetagttta 780 atagtaatcc ctaaaagaaa agggactcct gtttccacat catgtttttt gtagaactcg 840 cccatggtat acagaaataa gccctcgact ttataccgcc ctgcggcaat gtagttggat 900 tggaccaggc attgcgcact tctttttctg aaaacgttgg caatctcacc gtaatcccca 960 tctataccat atatcggatc tccagtccgt tggtaaaaca taatactcaa tgtcataatt 1020 gcatacagca tcccgagcca tgaaagggaa acgctctgcg ggttgtccca gaagttgttg 1080 tactataggg catcaattga ccattcgtca aatttggtat gtatagccta cctccttttg 1140 aaatgtagga atatggagaa ttgctgcagc atcttagcat ctacaatcaa atgatgagtt 1200 caaactctta ccaactatag gctctttaga aatcaggtaa tacgaaacca gtctgtccgt 1260 tacttggcga gccggaatat cagaaagcag ctcctctttg ctcatctgtc tgcttattcc 1320 gaaccagatt gtgggctctc tgctgctaat gttatcatcc tcagacactt cttcatctga 1380 taaatcatca ctctcctgca gtgactgctt aaactcgttt atctggcagc attttagcat 1440 caagcaccgg gtagggagtc actagtgatt tacctcttca agaatagctt tccagtgcgc 1500 gctgtagata tagttcgtta cggtatcctt gaccagcagc tttccgtctc ccccagaagg 1560 cgagctttcg ctttcaggcg atggtccctc gggctttggc ggcgaaggag gcgtcaacac 1620 cttcgcctgt tctcgggcca atggttcagg caagggtact gggaacgatg gtgaaaagtc 1680 ctgactcgga ggttctccct gcttcctctg ctgggcaaga gacattatca ggttctcgag 1740 gtgctgcaag cggtcctgga catgtgtcgg gctagcccgg ccgtgtgacg acctccttcg 1800 aggcccacgg ccgacaaagg tgcatgaatt tccttccccc ctctttaagc aattgttgca 1860 agggtgcgtg cgacagcatt tcagtctgaa atccatatca gtgctttatt ttgaatattc 1920 agggagaatg ctagcaacgc acttccgact cctgcaggct gtgcaagata actgtactct 1980

ggttcttttc ctctccttgg atagatgagc tgtatcagtg gcttggatct cggccatatc 2040 agcgttctgg gatgggacgt agaatagtgt gataaactac gaatgtcagc aaatgcagct 2100 tcagagcttc ctaataacga cgatctgaaa tctggattag gttttcgatg aaaagacagc 2160 ggaggtcgtg aggtcaacct cgaagaatcg ctggttggtg ttcaggttgt cagccactgt 2220 aagategget ttetttatet eegttgetaa acceegtaeg taetgggetg gaacttteae 2280 aacattaacc aaactacgta tettaatage acetetagea tettttgaat teeacgteta 2340 gaaaggggga tcatatatat cacaaacggt actaaatgca ctgtctaaat tgcctagagc 2400 ttcgcacggt atgctgagcg gatgtaatca agccctgggg gcccgtcgta gatctgctgc 2460 tcgaccacgc gagtgttgac ctgttgccga ttgtaagtat aatatgaagg ggataagagc 2520 cggaagetta catggtgagg teccaattge tetacgeget egeaaceaag caggegeata 2580 gcggtggacg tctcgtcggc cagaactaaa cacagtcagg aagttcgcta tagcttttaa 2640 tgcgaaagga gtcatactct gtaatgtgcg cttgacaccg gcgacacccc cagctcccag 2700 accecacaga gegggeette caatteecac ggeettegeg ecaaggeaaa gagettttac 2760 aacgtcggtt ccgcgtcgga taccgccatc aaccaagacc tcaagcttgt caaaaacctc 2820 aggacaatat ttgcggatct ctagcagagt atgtactgcc ggaggcgcag tatcaagagc 2880 tegtecacca tggttggaaa gaatgatace ettgacetgg ggacegtgga gegatgeaat 2940 atatgcgtct tcatgggtct ggagcccctt gagtatgatg ggtaggtcgg tatgcttttt 3000 caaccaaggt agggtgtccc tccaggtgag cgtcgggtcc gttccctgga aaaactgctt 3060 accaacgccg ctctcgcctt ggccagcacc ggttgcagca ttgccccgct cgtcatcttc 3120 ccgtttacca ggaactgggg cgtcgagaat gaagaccaca aattttatca ccttcagctt 3180 gttgacacgc gccatctggg cctcactctt cttgcgattg gtctgcccac acaactgcca 3240 teegaacace tgateggeag cageatitie gaeaatetge teegaagtea tggageegti 3300 gttaaacata atgtgcatcc ccccgaaact gcgacacgct tctgcaattc ccgcctcacc 3360 agctgggttt ccaacacgtg ccatgcccgc agggtaaaca taaattggta ttcgcagctt 3420 gtaacaacgc caccacagga gtcaatagag tatttaccac tccagcatta tatgccgtca 3480 tactgccatc tttggtcctt ggttagcgtg tcaaaaactt tt 3522

<210> 837 <211> 5169 <212> DNA <213> Aspergillus nidulans

· <400> 837

tcaaaggcga gggccttaca ggtcagccaa aataagatct aggccgggat tttgtgttgg 60 atttgagcct gttctggcgt atgatagttc ttgggctgtc atggcccgga ccggtgatac 120 tggggaaggg agcagggcac gctctgcgga gtcagcgtct cgagcagctg gaggagactg 180 taggaatggt agttcgtgtt gcgtatccgg actagagtct gggccggatt gttgacgccg 240 atcgtgagat tgcgaatggc gaggatgcga gtttggttcg aagtccgggt ggtatatatg 300 ctccatctgc tcaatcacct gctcttctag aacctctgtc accgtcagca tgcccgcttt 360 Ccagcaacta atgcagagac tgccgtgaat gaatctaccc aatcttgaat acaggctctc 420 aatttgcccc ttcttagggc cccgtcgtgg cctgttatgg ttcaccacgc agaccctccc 480 cgtcatcata caagagccgc attgcggttt ggcgcggtca catcgtgcct tgcgcttgcg 540 acactettea catgegagge etggttgetg cegegetgge ttgaatggae tetetegggg 600 ctgaggctgg gctttctgcg gcatatggac aagctggata agcgtggggt gaacctcgat 660 gagactgttc acactatcta tatctatgta tatccgagcg gctgtcagac tagacaggct 720 gacgggctct cagtgcgatt gtccacgggt tcagctcttt ttactttttt tttctttttt 780 teattatttg ettattegae aaagetaage aataaceaaa ttgttgteee ggaaaaette tacatggcct tatatctttc tgcaacctct gaaaaataac atccgcccat ctgatcccag 900 ttgttcgtga gtagtcagtt gtctaçagat acacaagata catgcaccaa caatttgcac 960 ctcaaaactc tgccgccagt ttccttcatc ggtaatattg gatgaaggag agaaccttga 1020 gagaccgatt teegeegetg atttactgtg aegtgttgag tteeegagtt ecataattat 1080 cagaacctca ttattggttc cattgacacg aggcaagata aggaataagc aatcatccat 1140 gccctaacgc ttgataccca ctttttaaag ctcaatcgcc attattcagg gtggctgaag 1200 ggtccaggag tatcttctcg gtacagctga acctcataga aactccgagc tccgggatga 1260 ctctagcagg gcttagcaat gggaaaattg gtgctcaaac acgtcagcca caatccataa 1320 cctcagaatc aaacgatcta gcatgccgcg tgtagcgaga tgaggtgaga ccagagtatg 1380 ggtcttctac ggcgaagaag gccgattggt ctcgcataca tcggatcagc tttgaaggat 1440

cgaggctgag gtgagctgta cttgtagtat aggggcaatt agggcttgta attgtatagg 1500 tegeteaceg agteeteegg tagatetggt gtaattgatg taceatttaa atcegttegt 1560 gctcacacct gcgttgtgcg attctatact gtcctggcct tagattgaca gtgcatcaga 1620 ctcacattgt gtacatcatg cttgggacgt tgtatctctg gcccacgcca gcgccgtcat 1680 acaatatcca tgaatactcg tggacaaaac cetcacegee atcageacca eggeatttge 1740 aagetteaat acceceetee ttteaateaa tategagate aaccacegte ceaacateae 1800 ctcaaaaagc cacagacact accctccatc ttccccgaat actttgcctc cacggcggcg 1860 gcacaaacgc gcgaatette cecagecaat geegegteet gegegeeege etaageteae 1920 acttccgcct cgtgtttgct gaggccccct tcccttcagc accaggtccc gacgtggtga 1980 gtgtctactc caactggggt ccgttcaagg cgtggttccc gccgggctcg gcggcccaga 2040 gagcaggtgc gagtctcgcc gcagcgtatg cgcacgctca aggtcagagt ggagatgcgg 2100 tccgaataga cgatgacctg gacatccatg actttgccgt gcagagcatt cggaaggcta 2160 tcgatgacac gatgaatcag gacgatgaac taggcgcgac gggggactgg gtgggtgtgc 2220 tagggttcag ccagggggcc aagatggcgg cgagcctact attgcaacaa cagagggagc 2280 atgaagccga gatggaaagc aggaactggg gccgggaatg ggcgccattg acaaagtcag 2340 gaaggaacgt cgactaccgc ttcgcggtcc tcctcgccgg acgagcgccc atgatctctc 2400 tctctctgtc agaggaggac gagacagact ccctcgtcac tgatacgagc tatggtactg 2460 cgtttagctt tgggttcgaa ccggctttgt atctgcccac tatccatgtt catggtctta 2520 aagacccagg attgccacta cacagagatc tactggatca tgggtgcgag tacggaagta 2580 caaagctcat tgagtgggaa ggcggacatc gagtgcctat aaaaagtcaa gatgtggtgc 2640 tggtggtgca cgcgatgctg gaaattgcaa ggaagaccgg agtgataccg tgactgggtg 2700 gtgggtgggc aggtctgagg tctgcccagc tctatgggaa tggcatcggg ataggtgtca 2760 ttcgacccaa ctgtatatgg caaaaggctc ggattggctc ctgataatac ttttcctgtg 2820 ctgttatcaa agtttagaag cacttcactg gctgacatta cggccagctc cggtatcgct 2880 gtgccctact gattcccgca ttcggcaatc ccgaagcctg accgtgaatc ggtctgacaa 2940 ttgagtagta ctgccgacta tgcgtagcat tgtggtagaa gcagtggtga aaacagaggc 3000 gagtcatact cgaccttatg accagegtte tetgcattag atcattgact geacatacga 3060

cctcgtgccg atctttccta ccgagaactc ccttagtatg gacaaccact tgttagcgtc 3120 atgggccact gaaccttctc agagtacatc aaggaacccc acatacatcc tcctgagaga 3180 caagggetgt ateggtettg acgetagega tgtggggtgt aatgeatata cagetaacta 3240 gttgcagaaa tggttgaatc tgcctatcca agcctatcat atcgacaaca agtagcgtat 3300 cgtaaattca taacagttga catagaagat agaggtaacc atcggcccat gtccttttaa 3360 tatcatgett ttaatateag etgteaatea aagagaeagt atatggaeeg aettaegeaa 3420 acactgcaac cttgcaggga agccgcgaag gcgcttgact caccgctaca agtaatcgtt 3480 cagegetece gecetetige atatigtace egeceataca gigecatagi tigagiagae 3540 gttctcacaa ataatatagt gcagccctta ggcctgggac cgaggtccag ctagccgcgg 3600 attgtgatta gttacggtta gcgaaggcct ggcttggact gaatacacct gtcataccac 3660 gcatctgggc caggtgatct ggctcaccct ctgtagcaaa acctcatgat aattatcaac 3720 aatcagaatg agcaaattat atggttcgat cgtcgttcta cccatttata cgctcaaccg 3780 gtcgcaaaat tattgtgtgg ggctcgtgga tcttgttaat atcttacctc ttatgcccca 3840 tettectaet ggegeeagae geegegeeag etgeggaaeg acagegetgg ggteggteta 3900 aaccgctcat cgttcccaga ctcgcagttc caggatttcg agtttccagc catttgctgc 3960 teeteagtig egeteeeet eaggiteiee aggeeaeage aggaeaaaeg eggigeegee 4020 aagccgaagc cctatatata atagatcacc tcggtcagag gaccacaggc aaacccagcg 4080 atgaggccat gctcactttc cgacggggtc attggctcac ttgtaaggct gtgcacattt 4140 ggacagaatt gtagttcagt tttgggtcac gcaaccgcgc gccggcgaca aatatggtag 4200 atgaggtggc ggtgcagaaa cagacctgag ggggaaatat taaacaggaa atgaaatcaa 4260 taaaacccaa aaaaggagag aaaagcaaaa aaagagaaaa caaaaatgaa atacaaaatt 4320 ttgaaattat taggaggttt aagatacaaa agaatacgaa aataaggata aatgttatat 4380 acaaaaaggc gaaatgaagg aaactccctc tagtttgatg ttagacaata ctgggatttg 4440 aatcagcagg attggtgctc caagtagcga actcttccag ccaaagtccg gggccccgcg 4500 tatectegeg aataageact gaegeactae tgtggtegae eeggtgatte ttttagtaca 4560 ctgtagtcta ccataagcac ctataagcac gcgggggttg gaaacaggaa taatccctgg 4620 ccatcgacca aggtaatgac ctattgggta taataagaaa ctagggagag cccgggctat 4680

acatctagag ttgctcgtac acgggtggaa ccggagagga ccttgagggg actcgaaata 4740 tctcgattta tttctcgatt tatttctctt ttgcttcgtt gcaaacaatt ataggccaga 4800 ggaagaactg caggccaatt ggatgctgtg tagtctgttt attgtcatcc catgagagaa 4860 acggagcgag tctcatagtt gaccgagcag gacgatcagg agatcagcga tgatcacctg 4920 cgatcatcct tgcttgtgct cttgggtcgc ctatccagag ccagacaatg tggaaaagac 4980 cgagccaagc agggggccac agtgatcgac gcgggttagt ccgggacagt gactccgccc 5040 acccacgccg gtcattgttg tgctacgggt ggtattcaaa tgagaacccc tgtcaaggat 5100 taaaacagaa ctggcgcagt gagcagagca gacagacatg tgaaggggca tagtactgtg 5160 ctcataaca

<210> 838 <211> 2511 <212> DNA

<213> Aspergillus nidulans

<400> 838

cctgctctcc cctcgagctc tctcggagcg ccaatagcaa gttatattca ttatacatcc 60 cacatggaaa tgcggggcca tcgagttcgc cttttgcaac agcgtccttg accttatccc agacaacgat cttcccatgg tcgacatcaa catctccatg agaatgctgg ggaagtgcaa 180 actccgacgg cgcaaacctc tgacatcctg ctgctattgc cgcggatagg aggttcagtt 300 ggtagatcac tatttcggga ccgggaataa ggagcgtgct cacgacggtg tgtatgtcgg atagagacgc tgttagagag tcgacgaagg tgtagtctac gtagcggatc tctgttttaa 360 tttcactatt tttctccgta ttaaaagagg tagtatagat agaggttgtg tttggcggaa 420 480 ttgctgctgt tgctcgggag aggatgatcg gattgtattt tgggctgtcg tgaagcgcta atacgagaga ggagccgatt gtgcctgtgc caccggggat tgctattttt tgggacattg 540 ttattaacaa ttaggaggat tgagagggtg aggtcgacag gtgttcggtg aagcctgtag 600 agaagaagta agaaaggtac tggttttttt tataggtagg cttgagtgac tgcattacgt 660 cagtagtctc gtgctgagag ttcgatacga aggatatgag tcattttact tcgtatctgt 720 780 ttcagttaag ttttatttga ttcgctgagc acagcggggt accaggcagc attaggcgac tgtagacgct gagtattgta gagggcgaag ttatctgata gtttctgaag ccagcaaagg 840

ccagtgtaat tatttaaaac agcgacaagc gtacttgcac caatattgtc atacatatgg 900 aaggcccgct ttacttttaa ttctttaatc tgtcaaagac cagatctttc caccagtatg 960 ttggctgttg gacgagaaat cgcaaacaaa ttagaacagt attcggagag gagtcttgcg 1020 tttttaagtc cttttggacc catgctcaag ctaatcctac ttggcctcgc aggtatatcc 1080 ctgatccttt tctgagccct tactattgcc tgccgtcatc tcttgatgca ggaactcctc 1140 ggcagagcta ttggttaggg gcggaggaac gttagcttag gtgaaaagga actccagcat 1200 ggtcaaaagg agctatcctg caaatgatgc ccgatgtgag aaggggatgt tttagtcttc 1260 agtcacttga actatgtctt cttgtgttgt tgatagtgta acctgtcctt gatcattact 1320 tcaagctcca attcaaacag agtttgaaaa taatggtttg gcttttaagt gtgaacgtta 1380 cccattgctc cagaatgagg ttgagttggc tgactacatg gtttgcaaga ctattgagaa 1440 teeteatete ttaaaeteee cacagaecag tacaaetgaa caagtettge atateettgg 1500 aatgtgctgt tatgctgcta agcaggtgta cagcaaatct taaatttaag ggtattaagt 1560 tattcttttg tagtctggca agcctaactt cagcacaaaa ccagtcactt tcaaccagta 1620 gatgcagtta agcttccttg cagaaatact aaaggtaatg ttccagcttg acctgccgtt 1680 tgaataggag ttatgacaac aagaaagcag taaaagaaga tccccttatg ctaactagac 1740 tttacttact ttctgccatt gtcagcaagc taggttattt ggtggcgtat tcttatgcaa 1800 atgtacacta gaaatcagga gatggcttaa aggcgaatga actctcacga ggtatcagat 1860 agaaataaag gagaaaaata gagcatctta cagtagcctg cagtaagcaa catattggtg 1920 tectatacag actatetgga gtetegaegt taactacace teacettega gtgate eta 1980 acctaggaat gtgggcggac acatgtcagt aatcaaataa cccttttaaa ctgggaggta 2040 cttcattact cacctaccta acagtttaga tggcgttaaa gtcgcgacag aacatatgcc 2100 atgttgacat gccaatgccg cagggtctac ttatttccca catggaattt gtcttgtcca 2160 ttagtataga gctggattat tgtgacaatg tgggtgttct tttgagcacg tactagtaat 2220 accaggatac tgattaagct gctcgtcaat cccgtgttca atggcacata tatcactaaa 2280 tttaagaacc ccattcgatc ctaacttacc gaagcggaca aattgctcat cgtcgtcgat 2340 acggtcactg cccaaaaagg tttgtagaat ctgaaaggcg agttcgtagg cacatgttct 2400 agcgccaaag gcctggatca agttccctag ccagcgtcct gccgcgtata gatggtacgc 2460

<210>	839	
<211>	3372	
<212>	DNA	
-2125	Acporailluc	nid

<213> Aspergillus nidulans

<400> 839

tgtttctttt acttggttca aagcaatgga cagcactcat tcaatccagc attgtggcgc 60 atttcaactg tacgattgca tctgccaaac tcatgataaa tacattctgc tctagagcaa 120 agtcacggtc cactctgata gaggtattga cagcgaaata tatgcaatca catgaatata 180 ggcaacaggc attectecaa geceetagat tegecegatt gacaattgge taeggegetg 240 300 cgcaaggetg aaaggatgat teatteacte caaccaacca ttegtgaget gaccagetee 360 ctcgccctca acacagttta acacactcag ccccatctgt attctatttc ttcttccact cttctctaat atatccagag tttcctgctt catcagacgc actgacacac ttattagtct 420 ttgtttcctt cctttgctgc ccttcctttc gcattgctcc atctctacgt cccccagata 480 540 cctagtacta tacctggctc tacatctacc agaactggtc gcaaaatgag tacctcagag 600 ctccgagage teettteett caaggatgee gatacettgg ettteatega eececegtee tacaagccag cttggtctct acatcccagc tgcgcccagt cgatcggcca cagaatccac 660 agctggaagc tcctaggatc ggcatctcca tttttgcaag cgcagttcga gcagcgcacg caggagcgaa acatcaagcg ccgaggaggt ttaccagacg gcatcaagta catcattgac 780 ctcaccccgc cctcggtaga agacgaggcc ctactcacta tatccgagct aagctgccca 840 900 ctcggtataa ggacctgggc ctattcacag tcgcgatgga ttctaccgga ggatctagta ggcggttctg agactcaggg tgacatcaaa gatcagtccg gccgtcttgc tgagtactct 960 cctgagaggc accgcgcggg tattgtccag gtcctaagag tattggaggg cctcgagccg 1020 aagctcgaca cgccatgcaa actgtggacg ttctttgccg tagcaaagtt gtacgggctt 1080 gcatccatgc ctgaaattag cgtccgtgtt agggaatggg tctacgaggg gaataacagg 1140 cgcctcattg aaatttatcc ggagatcact tatcgattgg ggaagggtat ccagtgcgcc 1200 cacatgatgc gagactetta ttgcgtecta gtcggggagg aggetetgcg gettetgcgc 1260 gattgtagca ctccggctcc ccgaaagcga aagactacag tccatggaag accgctgggt 1320

tegttggatg atgacgacga geaacgggtg caatacgeeg gegagteget cetaggetat 1380 gtgatagagc aattegtega getageeggg acegaaatge getggetgea eeggteagag 1440 atgtttcaga atgttcttgc ctacagccca aggacacagt acgcattgga gacgaaggag 1500 aatctcatat cttgcttgaa agactttgtg cggacttcta tcatcgtggc gctttctcag 1560 agagcgaaga ccagacttct ccagaacgct tcccagagac caatgagcta cccagcgaca 1620 gattttctgg acgtctttaa cagcctgagc ttgacggagc gtttgatgtc caggaccttt 1680 tggacacttc tcagtgacac acgactttcc gagcgtgatg gcagtgctga tgttgcagtg 1740 ccttggggcg cttcccttgc tagtctcggc ggcgaatttg gggcttttcg tggccagcac 1800 gacgcaatta tcaggcgtat cactaagcag gagttgtata gcagggtcgc cgcattcaac 1860 cgcctttcct taaacactaa ccttggatct cagcctgaac gacaccaaca caggtactct 1920 cgaaacgaat acaatgagct gacctatggg ccagacggac acttctctgt acctctcttc 1980 cttcaacagg cctattatca caggcgtgca tttatcaaaa ggatatttct gcaggcccga 2040 gatgaaatga attacgttat cgcggacacc atcactagtc tcaccgagca gcagtatcag 2100 tttctccctc tatgggctga cggatgtgat gacggcactg gcggcgttta cgccaaccaa 2160 gtaccgcttg ctgaggtaga tgggttttct gccccgggac cttctatcca cactggcagt 2220 ctgcgccgtc agtacgccgt cacgtacgcc gtccgtcgct tcgttcctcg agagcacagt 2280 ccacggcgca tctcaccaag ccacagaagg aatttgtagt gaagttctgt cagtcagttc 2340 agagetetet ttgggaactg acggggegag tatageeggt teteeggata tteaggetgt 2400 tgatcatgag ctgtcattta cgttggagac gtcggcggac gacgttgacg acgatccttt 2460 tgataccgac accagcgaca acacagttgt tcttgaccat ggcgatctta gcgagcttag 2520 tgaattcgaa gagctggata tgcaggacgg cccagcgcca aaccttccta ttaggcagaa 2580 gaaagcttga gtgaagaatt gctgggcttg acttggcttc tcatgaggat gattaataat 2640 gagcaggatg ataaaatgcc aataacgaag tttatgatct acatctgttt ggaaacaacg 2700 tactacgtgt tagaactaga tgcctcatgc aacttgggga aatgtttgat agcacgtgac 2760 agactgggac ttggcgtcac caacgtcatg gcgtcgagtt caacctcgag agctggtcat 2820 gtcagacttc ttcttgaaaa tcccagaaaa ttcggcggtt ggctcttggt attttggctc 2880 ttgtattacc aatagtcgca ttaaagcgta aaattcactc atcatggctt catcatcgaa 2940

geettegage tteetgetet agtatgteae eteagtgeae ceteecateg tegegeeatt 3000 teetacetaea tacagagaca actteageta agaactaete cageteetge ategeecaee 3060 geaceaceat cetegeegaa cattetgtte etggtteete eteaaetgee geateetege 3120 tageeteeat cateeteea aagateagee atgageagte teaaaagete acatacaeee 3180 aegaaegeet ettegtgeae tacatateeg acteecetee ggteeegeeg acaceacaae 3240 etetgaaeeg teeteetaeg caeeeetaag etacategtt gttgeaaegg eegaacaagg 3300 cegaegeate eettttgeet aceteetega aatgaagege egatttetga gtaettatee 3360 geeeteeaae ac

<210> 840 <211> 3483 <212> DNA

<213> Aspergillus nidulans

<400> 840

tacaataaag ccctcaacgg gcgaaagatg cacgcgccag tctgagggga attcgggcga gagcaacgag aaaatgatgc agtggtttga tgccatccag gatgatgttt ccaaggcttt ccctgaactg aacctgttcc aagaaggcgg ccctctacgt gaaacattgg tggatgtgtt gaaggcgtat gcgatgtatc ggagtgatgt tgggtatttg actggccttc atgtcagttt cccaccgttt gcaaacagat atacttcaaa gctaactaat cgcagaccat tgccgcactt cttgtgctcc aattcccaac accetettcc getttttgcg ccatggccaa tgccettaac 420 cgtcccctac ccgttgcatt tatgaccatg gaccatggag ccatcggtcg aactttctcg ctagcgtctg ccacacttcg ctacaagttc cctcgtctgg ccactcatct atatgaaact ctgcgactat ccgacgaaga gattttcgaa agcatgttcc ggtcactgct taccaacggc ctcgacttgg agcgcctcag ccgtgtctgg gattgttggg tctttgaagg tgatcgcata 600 tttattcgcg ctgccgttgc aatccttggc tgcctacaga cgcagctgtt tggttttact 660 720 gagccagatg accaaagtcg tttggcagtg aaaaacattc ttgcgtgggg accacacgat atoggaacca aacccaagga acgtcgaagc gcacccgcag ctcctatagc tggctttgcg 780 ggaggtetea teggageege tgeeggeeat tactggatte tgacatetge aggtgatgaa 840 900 gatggattca taagtgaaat gcgcgaggcg ggcaaggttc aaccacgggc ctagcactat

atacacttgt tcaagcagca gtcgtttcca taaatagcat agtatgaagc attcttattc 960 aagtaccaca agcagctgag ctcgtggggt cgttcccagg ctcattatca aggacccaac 1020 tgtgcaataa catcgtgatt atcaactagt tetttacagt cacaageget gtgtaaateg 1080 atagtcattt tacagtggct atggataaaa cetegeettt eeegtgeatg teaettatat 1140 ccgtcttcaa ccccagcaga tgtcaggttt ggagtagttg ggggcataga tgcagagagt 1200 aagtggatta agctctgttc acttgtactc gtactcgtat acagtaggct tggcatttgc 1260 ttatttattg cagtattgat tactcagtcg cactgtgaca tgacatcact attatcgata 1320 agcagtatca catgacettg ategeetege eggeegagge aaactaaaeg tgaetagaag 1380 ggcctgtttg aaaagtttca gtgtaaacat cgtgaagctg atccacccgc agagacagag 1440 caatcgcaaa atgacgggtc tacccagcat cagcccaccg ggaatcattc cccaattgta 1500 catatttgcg tgcgaccttg ggcagagctg cttccggggg acccgaaaag aaggctgtgc 1560 agtggaccct ttcttttct gcttcgatcc ttgttagtcc atcgtattcg tcctctactt 1620 cttcgcctcc taaaaccttc cccttcccga ttggcattat catttttaac gtcatatcct 1680 tattattctt acctgccggc tgtcctacct tggtttgtcc cggtcctggg atgtcttctc 1740 catecoeget actatgtgte ceteaceteg taeggatget gatgetaatg ceattgeete 1800 ccccaatggc cgccagagtg cctatgctgg cggggagcta agcccctctg acagcgagga 1860 tgcgggctta ggtggttcgc attactcctc tggcggcatt ggtgcagctg gggctgggat 1920 tgccgacctt gacgatgctg acgacgctga cgaagctgac gatgtgatcg gagtcagcat 1980 gggatatgat cagactcggc tcaagtctcg tacaacgcct gcggaggaga agacgcgcat 2040 catagagcgc aatggtggat atagcgggga tgaagggctc tttgcggcgg acataacaga 2100 ggaaccggaa tcgctggcgg atgatggtga tcaggataag gatgaaaatt ggagggctcc 2160 ggctgggaaa aatgggacag cagaaactcc agttgcaaag gcacaaaact tgcgcactgg 2220 ctttacacgg tctatcttaa aaggtacgct gccgctgcgg cctcgcgcgt ggtccggcga 2280 tagtcatact ggtagtcgga gcgggttgaa gaaattette eegtegttge aceteegage 2340 gagcagtttg teggtttete ggtategtte geggagetgg teategegge ttaatettga 2400 tcaggagaag ggtggtgatg tgtctgcggc tcctcagtca cctcagtcac cccaacctcc 2460 caacccaagt tegacageet egaatgggae getggttaet ggeacagege etgtggagga 2520

cccgatcggc gacttgagcc ccctgcaggc tccgtccgcg cgaactcgcg gcaaacattc 2580 ctttgtcggc tcgaacccga cgttgcggcg gtcgtcttcg gaccaatcgt tatacctgcg 2640 ggcttcgtcc accgcgtcct cactcgagca tcgtcctcag tacgagcata tccattcgca 2700 gactaacage egetttaaag ecateaagga eacettaeag gactetagea geeggetttt 2760 gagcatgccg acgcttcact tgcaggattt gcgcagcgat tggggtacaa gcagtttctt 2820 tctgatgcgc accaccgcag gacggagaca aatcagacgg atgacgcact gatctcgaca 2880 acctegeege eegaagetaa tgtgeattea eeeteegeta teeegegage gaagtegaet 2940 cgcaagagcg cggctgcgac ataccctgtc ctttttgagg ccatgagcga attgaccgga 3000 gatgtcgtgg tcatgggtgg ctacaggggc tcgattctac gatctgctaa gccaccacat 3060 cggcagctct gggtgcccat gaaagtcggg ttgaatctcc gcaaggtaga cctagaggtc 3120 ggtctgaatc ctgaggacga agaacgcatg gaagaaaccg tcattccgga tggtgttctc 3180 tegeaegtig gecetgiega cattigeega eggeteetea ageggetgea qaaatgeqaq 3240 aatgctgtcc gcggcgaact gcgcgtccac aactacggct atgactggcg tcttaqcccq 3300 catcttctct cccgccgcct catcaaatac cttgagggcc ttccctgcaa ctccccgqat 3360 ataccccege acaagegagg egegtaegte eeegeecata gteteggtgg eeteateace 3420 cggcaagcag ataaatcaac gccctgagct cttcgcgggt gttctatcgc gaggtgtccc 3480 3483 aca

<210> 841 <211> 2353

<212> DNA

<213> Aspergillus nidulans

<400> 841

taaggtctgc tgccttcttg ttgtagccgt caaaaacagg ccgctcaaga agcacaccca 60 gcccaggtgc cttgggaata gccatcttaa attcaccata cgagtcattg atacgggccg 120 gatcgcaacc gcaccgaaca accattgtag ccatagcgac catcttacgg atctgatgca 180 tcatgaaact ctgaccgtgc actttcaggc taagccactc ggtgccgtcg atgatgatag 240 gttcggggtt gagcttgaag gacttgatat gccgcttagc ggagggatca cgatactgtt 300 tctgaattgt gtagttgtag aagttcttcg taccgacgta cttgtcgagg gcttgttgga 360

tacgagcgag acgggtggca gggatgcggt actcccgcct tgcttttaag taggccgcct taacggtttt gacggcttcg tagatttgtc tccgaaaggc gatttctgcc tcgtctaaag gctccggttc cgccgatgtc tcttcagatg aggcttcggc aacgggtgcg gttttggctc 540 ecegeteggt getegtetge ttggtttetg gtacgecate ggtgtegteg tecatatgea 600 gcgctttctc gactggcttg cggatatctt cgggaaagct ttcaaggagc ggcttaataa 660 ctctctcatc aatatcctcc cagtagttgg caacctcttc ttgacgcgct ttgtaagcct 720 ccaagtctcc ctccttctca gcaatttcga cgagcttctt ccctagatat gtattgggat 780 gcgggggaag gaagcaatgt gacgggataa ggtactcgta aatacgtgaa tcacacatct ggtaactgct aaacgacttg ttggcgacta aaatacccca gacacggatc tgaggactga gatggtcgtt gatcttctgg acaatgtccg gatcctcgac aatcagtttc aacgagacga 960 tatttccagc cgcatggaca cctttatccg tgcgcgcaca acggaccagg gatgacttct 1020 teggategge egegttggee ttggagattg egeeggeege gacaaaegea gtgaacagtt 1080 ctccctcgat tgtcttttca gttgtgctcc tacagtcatt agtatccaaa cgctcatcaa 1140 gaaagcagga tatcgcacag ttgcattccc ttgtagccag ttccagagta cccgattaac 1200 acagcaacct tettettegg acgccgttge tegtteteaa tatetteett agagaactgt 1260 gtagcatata teggtgcaac taceteeteg ceatttteea getteetteg etttgettgt 1320 teggeteget egttgegete tetettatet ggeatttgee gaetageete gttagegtaa 1380 ttcgaccttg ctttcgtgaa ggctggtatc ctttaaaaac gccgacatac ctacctccat 1440 teggeeetge ceatategeg titettatge tigegaceag eatetigggg teecteagit 1500 cttgtgccgt tattgtccat ggttcgttgc gtttcacctg ccaccatcgt agacgggctc 1560 cgcggcagtc ggtagaaagg agaagacggt tcggaaaggt tgagcgaagg acttgtgaag 1620 gtattcgtgt acacaggtga ttaggagtcg accactgccg tagaaggagg tgggagcgca 1680 tggagaacga attatctgga atgatggtcg gccttctttt tcttgccggg ggttttttcg 1740 cattleggte getagteetg tttgggaeta gettetateg ceteaggetg gaagtgagee 1800 tcattctcga acttgcgaag acatcattca tccaatttct cgttctttat ccatcttgca 1860 acctgccatc tcactgtgaa cggatggcag cttctcccag ttcataatcc catttcttac 1920 ttetttaegg tetttaeeta eggtagtega aagaeggaga tataeaaaga gagaaagtea 1980

ggtgtagtac ctcattagca acctcttcgc gcagtggaac gctctaattt tctcactttc 2040 actttactgt ctcttgtcgg aagtgctatt ttatgaacag caatggacct tgcagatacc 2100 ctagttcgga cggtagcgcg gaccttctac aagactcgag acattctcat agttcgtgcg 2160 ctcttcattt atacggtgta tgtgtagcta ggcaaaggga gtgacatgat tccaagaggc 2220 ttagcgagct agctatctta cggaagcaga tccatgctga agatacttac attctatcag 2280 ggaaccccga gaaagagcta gcagctcttt gcgcctagtt actcgaagta aggccgatac 2340 tgacactatg aat

<210> 842 <211> 6324 <212> DNA <213> Aspergillus nidulans <223> unsure at all n locations <400> 842

gaaaagaaag agatgtgtag aagagataga aaagagaaga gatagaaagt aagaatgtag aacaagaagt acgagattaa ggatgaggag gatagaggga aaaagtgggg gtggatgatc tacggaggta gggtcccaag taggtggggg gggtattcgc tcccgaggag gacgtgtgaa 180 attgcaggaa gaaaaattgg ggaaggagca agtcgaaggt aaaaatggat taaaaagctg acctacagga tgggaaagtc tctccccctt tccacacctc ttaacgtctc cactgctgaa gaagacttcc ccatatcggg gtgtggatac atatctcccg gggactgtcc ccaaagagtt 360 ctcggaaaag cgggtaatgc acgcaggttt ggaatgctct gtagccaatg cggtatgttg 420 tgcaaagtca ccacccaag cgggaacttt gaggctatag gtatgcgggg tgccgtcaag 480 atctggaatt gtgacagtgt teegtttete tteggtgatt tetttegega teetegeatt tgtattggca ctggcgcggt caatctgggc atccagacat gcaagtaacg cgcgcgggaa aaggggcttc ccagaatcat aaagggcctt gatatgggct atttttgctt gtatcttggc 660 gagtgttgcg tcgtctgtat cgatttcgac gtcgatgtcg atatcaacgt cgatgtcaat gtcggtttca gagaggtcgt ggtcatggtc gactgaggag gagaacgaga ggtctgtaga 780 gggagaaata gatggattag gagaagggga atcagagtcc attgatgcag tcacggtcac 840 gctcatgtct ttgtgtttct tgtggctgtg tgggaaatca gggccttagt ctgggtctgc 900

tggtggagag ggtaggattt tttcgaggac gagacaatcc attcgaactg aaatgttggc 960 tactgataaa tcagatcgtc tgaggatcgt gcacagttta taagcaaaga gagtctgacc 1020 agtaggtgaa tgtgatctat cggcaggtat acatcaacgc aacggcctga caccgactcc 1080 cacegegtgg acaaataaac aatcaccaaa actatgtact ctaegttgac taaataatta 1140 agcaaacctt tgagttttgc tggcccgttt cgctgaaatt gctttttttt ttatttggat 1200 agtetetatt gtttgtetet gatttaaace agggetgtet ggeeteaceg ettgaegeag 1260 ctagacacca gaatcagtta cagctcagag ctcagcgtct ccaaatccaa ggcgagagga 1320 gcgcaacaat atacgaccca atgcgctggg attgtaccga ctaagtcatt ggccgctcat 1380 catataacta gccaacttaa gggatgggaa atgggaatag gccgtgcgct cagtccgccc 1440 tgttgcgccc tgacagttgg gttttccaac gtacataggc gttgggatgg tctggagcca 1500 acgcaggage cttggttgge ctatectggt cttatgcgat gtaggcaatt atttgacteg 1560 catatcgcgg agacgggatt agagcaataa ttccattgtg tatgctgcat cgcctcgttt 1620 tgttgggccg ggatgcacca tctaggttga ctagtctctt tagtgccagt ctaacacacg 1680 tgcaatcctt gggcattgga ggatatccca gggtgcttaa ggcgcagatt gaatggtttg 1740 aactttatgc teggteeetg teaatgtete catatteeet etggagaaat teagategtg 1800 gaggcgtgga ggcgtggcat ggttggtggt tcatatgacc ccagtcaagt acagcgtaga 1860 ccactaaggt cggagaaggc aacttggaat cctgcggctg actcgtagga aatagatcgc 1920 cttgaggtgg atatccacgc ctgccataat tagaatagtc cactgcgccg catctactca 1980 gagtatgaga ttgagaaaat cgctgctgct tttctttcag accgccacaa cggatcacct 2040 aggttegeat ggeaaaatea cattgaeegt taatttegte cateteaaaa aggaagtett 2100 tggagctgta tcgaggggcg tgatctcggc tcattgctca agtccacagt caggcttgcc 2160 attgcaattg ctagacgtca tcagttaagg cgtttgggta gctagaaacc aacagaaaag 2220 cctcaatggc ccgtcgcggt tgtccacctg ccgccactat gtatagccat gcatcctgac 2280 gattatccag ttggacctgg gtcggtcaaa tcagcagatg cctggggtcg tcctgtaaca 2340 agtggtccgt gccatgaaag actggttagc gagaccagac aatgccctag attcgctaga 2400 ttgacaccag ctcctagacg gctacgggtt cggtcagtga agggatgaat caattctccg 2460 acgcaatgcc gcaatgtcag ctggcccggc gcgacagcac cctccgacaa tgatgccctc 2520

ccagtcccct tctgactgcc cttgtaccac atcccaaagg ctctcatccc acgggcatcg 2580 cacaaccgtt tecegegeea eccatgtett ggtgacaggg tegtaettet egecettegt 2640 gccatccgga tacaacacca gccatggttt acccgacgct gcgtcccact catccacgaa 2700 gccatcttcc ttgcccctgc tcagcaagca atgcaactcg tcgcgcatga tcgcaacaat 2760 ttttgcgacg ttttcaatcc gcgtacagtt cagcccaatg ccccatggtc gcggcagccc 2820 cgggcgctgt ccaaccgccg catccaccca ctgtctaacc tgggttctgt ccacttcctc 2880 cgcgggaaag acaccacata tccaccaggg ttttcgcctt ctgtgtattt caggtcctac 2940 gcaaacgtcc ttcatcgctc cacgtacagc acaaacctcg tccgccctga tgagtgtttc 3000 aaatgcgaca aagtcgacct ggtcccacga ttcacgatcg tcaacaaaca cattcagccg 3060 tecegeatge cattgtetea acgeatecte eccatecate teaggeggat aageeeegt 3120 gtactccgcc gcaactgggg acatcgttgc accatagggg cctaatgaca gcgcaacgcg 3180 acactgctgt ggacgttgcc tcgcagagga gggaatggcg cctcggacga gcggaatggc 3240 agategeatg tagteteeeg cateattaat egtgtggett gegtetgtee ttgegaaace 3300 ttcaatgctg gactggtagg ttgctgtcag caggatgtct gctccagcgt cgtagaaggc 3360 gcggtgggcg gattggaggg tggatgggga ggagatcagg aggtgcgacg accagagagg 3420 ggtctcggag gtgaaggtga tattgaaagg gtaagactcg agtgttgtcc ccaggccacc 3480 atcaaggagg aggatettea tettggttgt teacetgett caacgattgg cataaggegg 3540 ggttgtgttt gttgagctag agattacaag tagaaactgt agcttatcga taaggatcgt 3600 ttacttggta acggtaagtt acggcctcag cctgctcact cgaccaacct ctctttcttg 3660 ccagcggagc tggagacctc agctatggaa tgctcaaaaa tgattcccta tacaaccgtt 3720 atgtgaacct ggagtatcga gtaatctacc ccaattgctg aactcacgat catgcatact 3780 gaaaatccgc gagttgcagg ttgccctctg aatcatgcct tgaaccctca ccactgcgca 3840 gagetttgaa etaaggatat tetattegeg aaateeeage attettgggg ttgaateate 3900 ccgatctcta taccagaagt ttctagtctc gacgcaataa taagttagga tcgatcctcc 3960 cnccaagtat acttccggcg cgttcgaaag aaagacctct cagccagtca tggaagtaat 4020 cctataattt gctgagccaa cagggcgctt catcaggtat tcaatcaagt gaaaaaccta 4080 gtacaaggat cagctagaaa ttgggtctcg ctttcccttc atccctacac cttccgcagt 4140

acatggettt gaegeeetgg aagaeggtgg etteaceaea geeatgggge atetggaeag 4200 atcataagcg ttccgacata aacacggaca aggcgcatcg gattgcaatt gtttgctggt 4260 agctcagctg cttcatactt gaaacgagct gactaagcaa tatgcttcta agcgccgaac 4320 tgacttgacg catatgagac atgtcatggc aaagaactct gtgcacttag atcggctttc 4380 agtcaacgtt agcatgggag attccaggtt agcaattcct agctgaaata cgtggcgggc 4440 gctgatgcgg ctgtgaggtt gcagcttctt ggcttccata ggcccctgtc attttgaagc 4500 aatggaatcc aagaagattg ctgttatgtt ggcacccgcc aaagaccagc catatacgag 4560 agcctcgcga tattgtaggc cgggtcaagc atttgaggcc tcgaggccat ttgataaagt 4620 acccataagg caacgttgtc acccaaatcg ccattgaacg gtactgacta tctatttacc 4680 tettggeagg ceacectegt taacaettgg etgaatggae aaateetgeg etgtteagtt 4740 cagacaagte ggggeteata tgeggeaeca aetttgeaea tataegeteg gtgaetegae 4800 cgaagcctca aaaaactctc ggctattcgt ctacattgac tagaatatac cttctttctt 4860 aagatgagtc cagaggggcc cgttcttgtt cttaaacatt taaaagcact gtgtcttgac 4920 acatctggta cggctagacc accgcatgac gccaccagat actagcaggc ccctccacga 4980 aaagagcagc gctaacacag ttcattccgc accagttaca gacgatgagg accaacaact 5040 tctaacggcc cgatcatggc cccacctcaa gttcgaaagt agaggcttag gcgcaatatg 5100 catcaatagt tttcccagcc gaccaacaac acccagtcgt agctctcgca attggctttt 5160 tacaattgac etegagaatg atgeeaaeta gtagetgeea egatetggeg gegaaaetge 5220 caagtcatcc caatcagtgt aacgattaaa gaacgacggt tatcacaaaa aggaacctgt 5280 cagttgaata cggctctgac agctgattgg aatatactga atatatcgtg ataacaaaaa 5340 teggtgecaa tgaegaagee geaeegeate tgateeagaa gaegteagtt etggttgggt 5400 gaaaccagtt cggcacacat ggaatcatgg aggctccaca gtcagtggtg tccctacagt 5460 gcgggtggaa tggtaagctt atgctatact actcctagac tcacaatctg agtctgttct 5520 gcgcaccete gatcaacggc atattecgca accaagatca cagatattgt etcecggget 5580 taccgaaagc aatcggataa ttcccacacc gactctgtga cacagattga ctccaaatat 5640 cacaaagagt cactgctaga gtcaatatac gaacaggctt ttcagtacag tttccttcct 5700 ccgtgcaaag ccaaaatctg tctatccgat ccattcgaca taacagaaac aaaccgcgca 5760

<210> 843 <211> 2299 <212> DNA

<213> Aspergillus nidulans

<400> 843

atcatccaat ggataagttc tgactgggca atgcttgcct ctctggagca tcttctgtcc 60 gcatgatcta ctattcatca tcattggtgt cgtggaaaaa taacacccgt acaacatgga 120 ggggcaggta tttaatctgg ttgtacccca acttagatct cccaaccttt actctcttca 180 cetetecteg etetegttet teggtetgeg tgtttteaac teeteeaace geggaetete 240 ctgattgaaa catggctacc gcgaccgttc tcgagaagcc caacattggg gttttcacca 300 360 accccaaaca tgacctgtgg gtggccgagt ccaagccgac cctcgaagag gtgaagagtg gtgaaagcct caagcctgga gaagtgacca tcgaagtgcg cagtaccgga atctgcgggt 420 aagttgctag gtcgccaacc tctgtcgctt tggccttgtc ccggctgaca actggctccg 480 ccaatacaga teegaegtge acttttggea tgeaggatge attggteeca tgategteac 540 gggggaccat attctaggtc acgagtcggc tggagacgtt atcgcggtcg cgccggatgt 600 tacttcactc aaagttggag atcgagttgc gatcgaaccc aacgttattt gcaatgcatg 660 cgagccatgc ctgactggtc gctacaacgg ctgtgagaaa gtcgccttcc tgtcgacacc 720 accagtggat ggcctgctgc gacgttacgt caatcacccc gcagtttggt gccacaagat

840 tggcgatatg agctatgagg atggtgcttt gttggaacct ctcagtgtgt cactagctgc cgtcgagcgc agcggtctcc gtctaggcga cccttgtctg atcactggcg ccggtcctat 900 cggtctcatc accctgctca gcgcgcgcgc tgcgggtgca actccactgg tcatcactga 960 tategatgaa ggtegettga agttegetaa agaactegtg eetgaggtee geacetacaa 1020 ggtggagatc ggtttctccg ccgaagagac tgcagagggt atcatcaatg cgttcaacga 1080 cggtcaggga gccggccccg atgctttgag gccccgtatc gcccttgagt gcactggagt 1140 tgaaagcagt gttgcatctg ccatctggag cgtcaaattc ggcggcaagg tgttcgtgat 1200 tggagtcggc aagaatgaga tgaagattcc atttatgcgc ctgagcactc aggagattga 1260 tetecagtae caataeeggt aetgeaacae etggeeeega geeateegte tegtaaagaa 1320 tggtgtgatc aaccttcaga agctagttac ccaccgctac gcactggaag acgcgctcaa 1380 ggcttttgag acggcggcaa accccaagac aggagccatt aaggtccaga ttatgagttc 1440 gactgctgac gtcgaagctg cctccgctgg tcagaaaaat taacgttgat ggagaaatat 1500 cgggggtttc agatctggcg cgtcgccatt gccatgattg tctttacttt tgtttgacgg 1560 acggcgtatg atgttggcta actggtttgt ttgtgcattg cgataatgaa cattgttgat 1620 gttttatgac catttcccta gagatgcatg caggctgtga gaatatagag atgcaggtag 1680 aaattcattc taatatctgt tttctttctc tgctcgatca tatgtatgtg gaaggagcgg 1740 tcaagaatga ccgggatgag cgacctccca aggttcttct cccgaggtca cctcctcgtt 1800 cctcctttcc tgcaactcat ctgtcactta gttcqccatc atttcqacat ccqqaqaata 1860 taactgaagc tatgcgatga gcaatcagcc acaccatata taagccgtcg tcttgtcgca 1920 aatatactag agccaggcag actcgcgatg tgtccaatgt ttgcttcgtc tgaccagccg 1980 cccgcttcac tacataaccg gtatgacatg tatctatttg tctatccgtt attggaaggt 2040 gctaaccttt ggagagtatg ttgccgcagt ccagtcaata tcaccactaa atatgccaaa 2100 ataagctctt tttgaagccg tttttcgggt tcttcagact tctgagtgct tggccctgcc 2160 atgaggtgtc cgagagaact ttcaggcccc agaggcctag catcctgagc aaagacatcc 2220 agctcggccg gactgtatcc ataacgtggt ggcatgttac agcactaaag ctggagatct 2280 2299 gcatactatc atcggcttt

<210> 844

<211> 2458 <212> DNA

<213> Aspergillus nidulans

<400> 844

gccaaaagct caagggtcca tcgatcttca tttaccaacc aatatctgta tatcacacat 60 cattlettet agatatatee atatagaaeg ettatateet atgaagtate etatgagage 120 aagagataca ggtttcaaaa cttacacaag atttctccat gtcaccgaca gccatgtggt gttgacgaaa agccctatat cggggttaag atatcccggt ggaaaaccga ggcgatggcg tttatgaacc cgagcatgtt tcttcaggtg tctatgcttg cttttattat tagtattatt 300 ttttttatta ttattttcta ttttttctat tttttggcgg aacggagatt gaattccggt 360 cgtctccact ggcgctccag agaccaaaat tagggccgga ccggatcagc caccattgca 420 gtagcctgta agcctggagg ccggaggcct gggctatttc cgaaacggat cagaagctcc 480 gaatcggttt caatagtcta gactttctag ctgatcgacg ggtgtgtggt agatccaagg 540 tegtgtetga aggetegtge tattgeegag teeteactgt tgeaggatgt etgeeagtat 600 acactcaacg caagatacgt attgttactg atactctaat ggatactaat agagatcaat 660 atttatacta tcgttagaaa tgccgcgttg atacaaagtc tggctaaaac acagtagata 720 ggaattatct aagactcaaa ctacaaccat gcaaaacaag aggtatcaaa agcacaactt 780 cacacgcaga gacaaactac aaatacgcct tcacctgctc ctcattccac tcccaccatt 840 tectaettgt eteggtatet gtaaagagat egegeegtgg geateetate tteeetggeg 900 gcacgaccca ctecttetee gccaceteag cegtgatete gggaeteagt ecegeaaaca 960 gctgcgtata cgcaccgatc tcgggcttgt tcgcgatcag tttgaccatt gtcgacatca 1020 accggcccat atcccgctgc agtcccgtat tcgcaatgcc cggatccaac gcgatgctga 1080 caatgccaga teegteettt etggeeegge gegeeagete aacggettge atgaeggtee 1140 cagecttgga gegecegtae ttggaeeggt etgaetegtt tetgeggtag tegaggttgt 1200 tgaagtegat egegggettg ggggeeeagg aggeggegte ggatgagace caaacgaeee 1260 ggactgtatt cttgggcgcc tccttggccg ttgccgcaag agtgggatag aggagttttg 1320 tgaacaggtg cggaccgacg ttgttcgtcc ctagctgcag ctcgtagccc tgtgatgttg 1380 tcgaacccgc aggcgggaac atgacgcctg cattgttcca gaggacgtgc agtctggttt 1440

ctttagcgag gaactcctcg gcggatttct tgatcgtgct cagatcagac aggttaagcg 1500 agatgctgtc gagcctgccc ctggaggctg ggaagcgctg tttgaggtcg gcgatcacct 1560 cggcggtctt tttggcgttg cgcgcggcca ggtagaccgt gccgttgttc tggtagaggt 1620 atgtagacag cagcaggcca tagccagagg ttgcgccagt gacaatgaag acctagcatt 1680 cgcgctgggg ttagcttggt ctcgatatgg actggcccgt cggttggctg ccggctggaa 1740 agaggggtgt aggtaccttt cctgactgat ctccaatgtt ggcctctgtg agcgctggtg 1800 gacgcgatcc aaataccatg gttgcaagta gtcgaacaga caatacgata acaagctcga 1860 gaactgcgac agagtcccgg ccagcgtggg ggtgggcggc ccatataagt agtgcgccgc 1920 ctcgactggc cccttgcgtc ggccacgacc ggccagccag cacaagccag caagcggaat 1980 tgcagateet etagteeate agggtegetg tggegetage agteaataat gtgeeactge 2040 cacggcctgg tcgctcccgg gccagcgagc gagatactcc ggactccggg ctgattggcc 2100 atctccggag ccagtcaacg gcatcaccag acagagacgc attcggggcc agcagggcag 2160 gaaagagacg agaatacacg gctgagctat accaggcggc cggttatctg gtctctgacg 2220 tgtcgacagc caacgggagc cggagaacat tccggtctgc acagctccag ctcagctcca 2280 gttctagctc tctatttgtc agatcggcgc taggcgcccg gatttaatta atatacgatc 2340 cttatctcca agcccaggtt actgagcctc gatgtcatcg cgtgacgagg ttgtagatta 2400 agcattgtgt aaagagcaat tagggccaac taaacaaccg gactcatgca ctaatgct

<210> 845 <211> 1195 <212> DNA

<213> Aspergillus nidulans

<400> 845

ctggacgggt gtaacatacc gagaggaacg aaagctttgt tgctttcggg aacgtccggg 60
tcagacatgg ttgacagtct taacttgaat cagaggtaga atcagcaatt taaggcgttt 120
ggtgaccaac gtgtttgatg tataagtgtg gtgttgttgt tgttgttgtt gttgttgttg 180
ttgttgttgt tgttgttgtt agtagaggat agcagagagt gagtgagggg agaaaatggt 240
gttgcggggt taatagtcca caactccgcg ttgaaggcgg aggcaatttg tacgaaacaa 300
caaagcctac tgcatgcact gacttagcgc tggtatagaa atcgcacata tcattattca 360

ttatcaggaa tatttacgtt tatttgcctg ccagcttctc cccgcgcttc aaaggcgcat agateteegt ccaaagetea etegeetege ccaaatagta ggteaagetg aegtetgeea 480 tgctcgcctc ttcgccgcca gagagagtct caagctgaga aatgagattc tccagaccga 540 atgeetttee agtageetge gtagegeetg eetcaageat gacattgaca atatggatgt 600 ggaaatgata gtaggteggt tgatetggag catgteagea etegeeggta ateaaaaegg 660 acaaaaaatt agattcactt acaatgcacg taaagcttca actgatcttc ttccaggtcc ggatacattt tcacggttcc ctcaagcacc ctcttcctca aatactttag ccaggggaca 780 tgcttcttct tcagatctct caagctccat aaatcacgcc gatgtacaag cgccagcaaa 840 tgcaacgatc ccagcgtttt tcgatcccag ttcagatcag gcagcatcaa gaacgcatcc teggeteegt geceateate eegeageata acateeteet getetgtgeg acceteeagg 960 atattgaaca cccagttcag ccgcccttcc tccctcttct cctgcatgta tggtcgtaca 1020 tagtcccgat atatctccgg cgttttccgt gaccatgcgc agcacctggt ccgagtactt 1080 cttgatatgc tgctccgtgc acggccagat gacattgagc ttaaaaaatcg tgcgactgat 1140 gcccatcaca atctatgccc gaggatgcta ggtaccatcg atatagttcg ttatc 1195

<210> 846 <211> 4681 <212> DNA

<212> DNA <213> Aspergillus nidulans

<400> 846

tetttettag ggcattatet cattgggaac agtatateg teagtataag actegiteea 60 tgacacaaca gtataceage etegaateee tetacgaaca tetteaggga atetatagie 120 aaatagaega gecagaegge attgagggta tetegaeeca tetigeaegit eteaacatig 180 accaacaggi gettgageae eggaaggeag gaagatggge cacageacaa agitggitatg 240 aattgeaact tgaaagggaa ecegataate tegaeegetea atggaaeete tieaetigit 300 tgaaggaate aggeeaacaa ggitatacaca etiteteete tgatetgaat titatettat 360 taageettae tietiteeaga tgetattete aegegiteeg agatteteea aaacacaagi 420 teegiteeca gatteetee attegeggig gaggegiteat ggatgaeagg gaaatgggag 480 aagatgeaca actatetega getitigteeg eaacaggeta eageggaett eaacatagge 540

attggcttgg ctctagatgc ttttcgtcgg ggcgaaccac agcagtttag ggaaatcgtt 600 gataagttga gactgagtgt cgctaggtcc ctcactgcca actctgtcac ttcgttacaa 660 tcttgtcatg atagcatgct caagttgcat gccttgacag agatagagtc tgttgtccta 720 gcaggaggcg cagatggaag tcaaggctcc cgctcgtgtc tacgtgatgc tttggatcgt 780 cggctagacg tcctgggagg atatatatcc gacaagcagt atcttctcgg cttgagaaga 840 gctgccatgg aattggcgta cgttgtccct tctgaaggat gggctatagc attactaaat 900 aaatgaccag tggcagcttc gcagattccg atatagccgc tgcctggttg acaagcqctc 960 ggatgctgag atggggcaat tccggcaacc aagcgtatca gtcaatgctc aatgctgccc 1020 acttgaagga ccgctccgac accattgaac atgctcgact gctctggaaa gacggacatc 1080 accgcaaagc tatacagatc ctagagggag cgatagccgc aaatgaattt gccqctcctq 1140 cattgagctc caataatcca aatcgtcaat acggttcttc aaaccatgaa aaacaacaaa 1200 atctacttgc cgccagggta tttcgttcag cgggctcgtt ccttattctc ccaaatcggc 1260 taacttette taggegeate tattattage gaaatggaee gatagageag gacaaaegea 1320 gtcggacatt atagtgcaaa gatatcgcga ggcaattaag ctccataaca ggtaggcgaa 1380 gcttgatctc tagtaccatc ttcctctaac gagcttcaga tgggaaaagg cacattatta 1440 tcttgggaag cattacaaca aaatcttgga ttcggagaag tcgaagccgc tcggaaaaga 1500 agcacaaatc tagtaagttc tagaatgagg gacgtgggct gttattaatt attgtagctt 1560 gagtggtgag gegteaaaae tagtegttga eaattaeett eggteattgg eacatggaaa 1620 taaatatgtt ttccagtcac tgcccaaagt cttgaccctc tggctggaac acgcctcgac 1680 cgtcgaacag cccttggatc caaaaagagg ggacaacacg tatgtgttca tctatgtttt 1740 cccccacag tatccaattc catcttaaca gcattgaagg gatttccaag cacatactct 1800 aaaccaacgg aggaaaagtc tagatgacat gcactcgcag ttgaggaagt atgtcaacag 1860 aatgccagtt gcattggtaa gctgcttatc ctggatatag taatgtttct gctgaccatc 1920 agetetteae aateeteece caagtegteg egegaatatg ceateeaaat eecaeggttt 1980 ataacctgtt gaccaagatc gtggcgaagg tagtgaatgc ctttcctcag caaggactgt 2040 ggaccgtcct tgccgtagcc aagtcatcat ctgcagacag agcatcgaga ggactcactt 2100 gcctcgacaa gatcaccgta tgctacaact aaatgtcttc aaataaggcg caatccaggc 2160

taagatgatt aacaggatat cagcaagagg ttgaaaacag aatcaaccac tgacatacgt 2220 ggaatgataa accaaggcca gaaattctca gacgagctgt tgaagttgtg tgtggctaag 2280 atcgaaaaca aaacctcccg gatcaacctt gcacggaacc tcaattttaa tcataaagta 2340 gccccgtgcc gacttgtcgt tcctttccag actatgctca ctccaacctt gccagctagt 2400 catgacgccg agtacctaaa gggattcagg gcttttcctc gggatccaac aaccattgaa 2460 ggtatgcagg cattacacac ttaggagtgc acctttccta atgagtctag ccgtcctcga 2520 cgatgctcaa atcctcaact cgctccaaaa acctcgcaaa attagcattc gagggtcgga 2580 cgggaggatt tacaatatcc tgtgcaaacc gaaagatgac ctccggaaag accaacgcct 2640 gatggagttc aataacatga ttaacagatt tttgaaaaag gatgtagaat ccagcaaacg 2700 acgcatgtgt aagcatttca ccgcttgtga ttcttcccac ttctqctqat ttatqqtaqa 2760 tatcaaaaca tatgctgtta cgccgctgaa cgaggaatgt gggcttatcg agtgggtgga 2820 caatctcagg actctgagag atctggtcac gagggcactt aaggagagag gtataacgcc 2880 gaatgtaagg ctcaaagcat tttttttccg tttgaaacca gaaattggcc ccaatcaaca 2940 gtatgccaga gcggaaactg ataatttctt agtatgatga aatacgacat tatctcaatg 3000 aggcatgete agaccettet aaagteteaa tatttacaga caaggteeta gegaegtaag 3060 tgtttggtat agcccctttc gatgctagcc cactaattac agcacagctt tcccccagta 3120 ttgcacgagt ggttcgtgga gatgttccct gagactggtg cttggtttgc cgctaggctt 3180 cgctatactc ggtcatgtgc tgtaatgtcc atggttggat atgtcctagg gtatgttgat 3240 cttattgaat caagettace ttgetaaceg tecaetetae ageetaggag aceggeaegg 3300 tgaaaacata ctctttgagg aaggcactgg tggcatcctg catgtcgact tcaactgtct 3360 ttttgacaag gtggattgtc tcgatcttct tggactgacc gaagaccata actaatcacg 3420 tgcatttagg gggggacgtt cgataagcca gaggtggtgc catttcgcct cacgcagaat 3480 atgattgacg cetttggtge ttacgggtat aatggttagt etteactaat geagattaat 3540 gtcctttttt atttaacatt cataggtcca ttccgaaaaa catgtgaact cagtctcgat 3600 ctcctgagac agaatgaaga cgccctcatg accatactgg aaacattttt acacgacccq 3660 acgactgatt ttattggcaa aaaggtacgt atctcacctt tgcttattaa ggcatagcca 3720 atattaacac catcaagcga cgaactcatg caaatgtccc ggatactcct gctggcgtcc 3780

tegaaaatgt tegtaacaag eteegeggee ttetteeegg tgaateggte eeactgteag 3840 tagatggtca tgtcgatgaa ctgatcatcc aagcgaccga tgaacggaat ctcgcggcga 3900 tgtacattgg ttggtgtgct ttcttttaga ttgaggaaag agcacgggct ttaatgctcc 3960 gggactgtga caagcaaatt agatcgtctc gaaaggtact tcatcataaa tgcaaccaga 4020 actcacgctg tatttaaagt caataaacca ttatcagggc tgaagcattt ccagtgcatt 4080 gcgggttaat cactagacac ttctgtacgt ctcgtaagaa ttatctcctt gataaaccgc 4140 tgtagegege cetteteega ggtggegttg tegaaggaga eegggaagaa aaegategag 4200 aacggcgagg tgatcgagac cgggaacgcg agaatgaccg agaccgggag cgcgagagtg 4260 atcgggaccg ggagcgtgag agtgatcgag accaggagcg cgagagtgat cgaggtcggt 4320 ataagtcatg tctctccatg cccatggccc gggaacgacc atacctccga ggaggagaag 4380 ctcgctgctg atatggcgag cggcgagagg aatcgtccgc aggtcgtccc ggaaggtgtc 4440 tctgacgtcc atactttcct cgcccttttg acatgggcgg cggcgaacga gaaaacgctc 4500 tetteggtaa taetattgac acatteagga etgececate aagetggget teatgeatat 4560 gcgcaattgc ggcttctgca tctgcaggat catggtagat gatataagcc gtgccctgt 4620 tcgtcatgac tacgcaaaac taggtcagct gcgtttaggc aaatgaggaa gaaacataca 4680 4681

<210> 847 <211> 2181 <212> DNA

<213> Aspergillus nidulans

<400> 847

ctcaagctga ggacgtcatc ttacccagca cttgtcgccg attctctcgg ggcgagagcc 60
acggataccg acaccaatga cgtgtgtgga ggaatagaag agctgcttgg tcagaccgat 120
caattcctgg tcaccaatct gctcggcgag gtagtccacg gccatggtgg aaacaagctt 180
ctggtagccg acggtggtgc catcgcccag agtgacggtc ttgttcttag ggttaacctt 240
ggtgaccttg cccttctcac cgaagcgggt cttctctttg ggaagggtgt tggcaacagc 300
gatccagata ccaccggtac catcgcggc ggggaaacgg aaagtagcgt taggacccca 360
gttaccagcg gtcttgttaa ggataacgtt ggtagtcaca gccttgacgt tgggagcagc 420

gacacgetea ecgagecaag egeattgeat etaaacaagg tegaatatea gtatttggae caatcttggg atttcgaggc tggagggcca atttacctta gtagtgggca cagcccagac cttgtagttg taggggcgca tgaaaagatc ggcaacaccg gtacccatca tgcgcacaat ccactcgtcg aagtccttgg gcttggtgtt ggcgacgcgg tgctcgatag cggcatcgat 660 cataccgtcg atacacttga cttggtcctc cttgggaagc atggagatgt tgttctggaa 720 780 agggtaggga acccactggc ccttgcaacg gacgtaggag atacgctggt gctcgtacca 840 atcatcttcc ttgggaagag cctcgttgat gcagtcatcg aagtacttgt agtgggagaa aataacgtgg ccaccgacat cgtaaagctg caattgtgtt agttgcgcag tccatcagat 900 atcaccattg atgaatccac atacgaagcc ttcgggggtg acatcggtag aggcaagacc accgggagtc tcgttggagt caacaaggag ccacgaggga ccgttctgag gcagaagtta 1020 ggatcttcta ctgcgcgcaa ttggagttag aggtcgtaca atctggttca gacgctttgc 1080 agcacccaat ccagttgggc cagcgccgat gacgagaacg tcaactgagc tgtagttgat 1140 agcaaactgt cagcgttgaa cccctgaatg gcatcgcaga gagagctcct tacatatcgg 1200 ggtgggtcat cctgccttgt aggatatcct gaaagctggg aacgcggttc aaagtcttgc 1260 gagctagact aagcatagaa gagagcgaag ctgcagttgg cgctgcagaa tttaaagaga 1320 ggaaggtgga attggaaggg agagaagacg gtgagggaag gtgggcggaa agatacactg 1380 gtaactgggc agctggaaat aataatagcc ttttcgcggc cggcggtcgg caggggagaa 1440 cgtgacgaag ctggctggac ttcttggtgg ggggattggg tttcaaattt cgactcgacg 1500 cctttgcaaa ttttacattt taaaattgag attaaagtaa tctcatcatt ctactatgat 1560 tegeggteat tattegacea etceagaegg ttgegtetga geettggaaa ggagaetgee 1620 gaaaaggggg acccaggcgc tcaattgaat ctggaggcaa attgtgtctc atcttcatat 1680 ctggttgcga atgcatccct tcttcttctt gactagctcc cgtagactac tctgcgccat 1740 ctgcgcttct cccgggactt cgttggacaa agatctatcg agcaagacga gatcttcaag 1800 ggatactact gtatatcaag tgacaagggg cgattcgccg gatcctggtt gtaattggct 1860 aatccaggca gtgatgctta tcgcaatgcg cattgtatga atggcatgcc tttaaatgaa 1920 ctctgaatga actctgaagc caagcgaaga ctgcatgact gaggctggtt cctttccaga 1980 gtagactgga actggaaaag ctgacctgcg atcagacaag gaatgctcca ggtggctggc 2040

gaccctgaag cggatattcg agcgacctgc ttagagtcaa caacgcccgt tgtcgaatgc 2100 atgatatgac atgataacca tattgggata cctcaagggc caagagtcct gcttcgggtt 2160 caagcctcaa aagagccagt g 2181

<210> 848 <211> 2326 <212> DNA

<213> Aspergillus nidulans

<400> 848

aaggaaaatg ggggttggtt tttgtttaag agatgaaatt ggttccaatt tgtaagaggt 60 taagttgttt teggtgttta ataaaaagca egetaaaaaa aaagaaatet eeggtgeeat tgaaggaaat cggcgctaat cggaaggcat ttagagccaa aaaacaacct tagtcggctt ggttataatc gaatctgtca ctgcaaaggg acatataggg tccgtccctg ccgaatttac 240 ccggcacggc tccaacagta cttgctagtc gaagtggctc aggcgcccac gcaagcgata 300 tggtttegae ateceaaege aatteeaeae egegaeeeta tateteteee teeegaaeae 360 tggcccgtac ctgaagctcc tagggggagg gagagaccat ctcatcgcac tcctcaagaa 420 gtcgccgtct ggagaggcgc ctcttacact tcttcgagac cggtgggatg gtgcagtcga 480 atcagagcgg agttttgacg tggcaaagcg ggcgaggggt gagttttgcgg gagttttacc 540 ggggaagaca aagaagtgga aagaattcta cgggatgagt ttccggtggg tgctggagga 600 ageggteggg geggggttgg ttgagatttt caataegggg agtgttggge etggagteeg 660 gtgtttatga tcatatatac cctgaatcaa atctttatat ctttaataga ccaattaatg 720 cctacaccat atggctgtgg aaacctaagc gggaacatga aactatacct tgaaaggacc 780 ggcttggtct gggcttcaga gatcaatttg ttttcagcta tagaaggtta attattgagt attagtatgg tattatata atcgtaagta gtatcaaaat gtcgatccat aacgccgtcc 900 atgaaaaggc atcctcatta aacccagccc taacccaatg agcccaccaa gcgagaaaca aagtcataac aagacgtcac gcaatatatg tgcatagctg agagactcta tcccaattaa 1020 cactegtata tgcaggtagt caggtagtta accaagateg ettacgatae tacceaeggt 1080 cactetecca egagaacetg aceggeetag agggaggegg eggeggegge ggegtegteg 1140 aggcactgcg ctcgtattcc ggatgcaaaa cgggaggtat tccagagcaa gcaccggcat 1200

caaggetage actecacett gggagtette eegeetgaaa eaceggtget ggetgtgtga 1260 ttgccgacat cggcaattgc atctgcaact ggttctgctg atgtcgaaac gaagaggata 1320 ttgacatcga ccgtcttgat ggcgctggag agaatgcccg cggcgagtac ggcggcggcg 1380 gcgtctccct tgtcgccgtt gatgtgttcc cgtagctact cgggaacgag atggcagagg 1440 agacgtccga cgagacttct tcggggcgcg ggtgggtgtg ataggggtag taggggtagg 1500 gagagtegga ggtggaggtg gaggtggagt gggagtaagt ggetgetaee tetteeeaag 1560 ctagacgctg cttttcttct gttgctgtgc tgttctgata atactggtga tgacggtatg 1620 tttcgttgga gactgagggg tcgcgcatat gtgctgctaa ggtcttttcc tgggcggtca 1680 tctctatccc tgccggcggt gtgtatgccg ggagaggggc tgacgtatag ccaccatatt 1740 cggaaccatc ttgtggtggt tgagcagtgt taatgtcgcc cgttgggacg ttaggatagt 1800 ggggtgtttc tctcgcagat tcgatcgatt tggtaggtag gcagcagctg ataaggctgg 1860 aaaggcacga catgctgcta tggtttgtac gcagtattac tttggtccag ttcctgtggc 1920 gctcgatggc aaacccaggc acgggtcttg cttcatagat tggatggaat ctcggtgcct 1980 gagtggattg gccgcaccgt gcacgatgag cggatgctcc gcaatctagt acggagtaag 2040 agtgtttggt gatggacccg gtggagggag attcagtcga ttgctcggtg tttcaggtgc 2100 tcaatagcaa gcccatggca cgtccactgt ctacctagac aggccagaca gtcgtctagg 2160 agaaggaaat agaataaaga ggggaacatg gggagtgtca gcttttagag gcacaattga 2220 ggctgtgaac aagcagtcct ggccttaggc agagcagtta tggcgctcac tgattggttg 2280 tggctagaaa ctccgcagcc cttagagggc atcaaatttc cctttt 2326

<210> 849

<211> 3814

<212> DNA

<213> Aspergillus nidulans

<400> 849

tattcacgcc acaaggtgaa cctataccga atttttgcaa caggtgcaga atcagagaca 60 ggaattacaa caagaaaatg atcatggcga gacgcaagat catgaaggga aatacattgc 120 tcaacaaaga gcgaacaaac ccgccgccgc tcttcagact gaactaaccg aattgcaaga 180 aaagccgttt cggcctcgaa ccccacggcg ggcacaaagt tggagtatgg aagaccaaaa 240

gcatgagttc catcggcggc tgatggattt tgggaaaggc gcggagcgtg ggttctcgga gacttgaggt atatctgaat cctcggtcga cttgaattct tggtcggatt tctacgcttt 360 gtatattagc tgtccttgtg cacccatcgc tgacctatat tactttttta ttgcagctga 420 cagaatttga ctaggcttga gcattgtaca caatccggtg gacacctttc atgaatgcca 480 gctaagaaaa tctgcaattg gacttccagg tgcccacctc attgaattgt tgctactgta 540 aaccegecta etetgettag agecacaeag agteageete atageatete tgteaegaeg 600 cacgccaaca ctggtggcga tggtttgtca ctgacaaggt cggattccaa taaggtcaca 660 720 ttgtategee ggteeagttg caatgeggea acteagetee aggtgtaggg gegatgtgge 780 acctgtggca caaggttgag ctctgaccaa tgttgaatct cgagtaggtc tgctctgaag ctgatgcagg agacttgata tgttccgcat ggaccaacat gattatatcc acaaattttg 840 900 ctgcacattc ttcaacaatá gccaccattt aatacttgct tggtagagtc tagagtaggt attgtttgtg taacttatcc aggcctgttt caaccaagag gataatggat acgtgccccg gggcgggctc ggtgctgtat acttgtctta gtatttcctt cttcctgcta gccagtatat 1020 cacacttaag gaaagctcag aaagttacat ataatcaaac ttgccatggt agatttgcag 1080 aggtatcgca ctttaagaga aattgggtgc aactgtgggt tgttctttgc gtagccatcg 1140 ctgatattat gctcagcgaa tcgggcggac tttgcgaccc tttatctcaa agtatgatct 1200 tccaggcaag gaagagctcg taataatgat atccagacaa tgatttttct atatctgcga 1260 categggttg actggcgttc aagtcgaacg acaatttgcc atcgggcgga gtattcttaa 1320 cttctcagag gagaggagct gaactattgc gctgactgga aagcgacagt tacaatgtct 1380 ategateget tgagacettt gagagettga tagtetetaa gataegtggg ttetacatat 1440 cttcagattc gtagatagag tcaagegege tateetgeta tttteegeaa caetaegetg 1500 caatcgaagc cttcccccgg cacaaccgcg gaatatcggc tgatttatat gatgatagtt 1560 ctgacgatgg ctttaatgtg tggcgggtaa aacattcccc tacagtgtaa catggcagct 1620 tctcgccaat agttcctttg cgttcgcggg gttcagtatt aaaggtcaca gcaaaccagc 1680 cgttcgttcc gtcacttgca cccacatatt agagatggta aaaagaccca gattattccg 1740 cgcgtcccag ggatgagtcg ggttgagaag cgccaagtcg aaattgcgca ggagctacga 1800 cagtcagcgt atcatccaga aggcagcaag cccgcactaa gacctgtttc agctcacctc 1860

aaatatcatc ttcccaatct caacctgggc cactggtttt cctaagcact ggaacttccc 1920 gtgcccgaag ataaggtcgt tggtccgaac catgagagcc aacttggtag ggtttggttc 1980 aagaagecae egeteeggee gaaaageett tgegteetta eegtatatet tetegetgeg 2040 gtgcatggca tatgccgagt acccgatgca gacaccacca gggagaaata tggactggcc 2100 attgacgacg actgtgtcgc cgtctttggg cacatcgcgc gggaagatgt tcgacacagg 2160 tggccagacc cgtagcgcct cgcggataac agcttggaga tatggaagct gtttagcctg 2220 cgcggcggta atgaggcctt gtccagcaga cggagcaagg ccccggtgca cggcatcatc 2280 gatctcccgt tgcaacttga cgtaaacccg gggatttgtc atgaggtgca gcagcgtgcc 2340 acgaatggcg ccggcagtgg tgtcggagcc cgcgagtatc tgctctaacg cctcagtacg 2400 cagttcctcg cctgacaagc cgtggcgtat gaaagaggcc agcatgtcgg accgtttatc 2460 ggtagcgctc gcggcgcgct cgtcgacaaa gcggaagcat gtggtcatca acctcccaaa 2520 tccgttattg tccttgggcg agggtgcaaa gaatttgccg atgaagggcg cttgattgat 2580 gttgctgaag cccagcgcga gggcagcatt gccgattgcg agaccttcat cgctcgattg 2640 gaggtattga tcgacgtcgc ggtcagcttc cagcataccg aatgccttgc cgaggccgac 2700 gctactgatg acgtcgagcg taaagtactg gaccttcttt gctagattca tcggcacagc 2760 ctgctcgcag gaggagacat atttggcgcg gatgaggtcc aggaggttct gcagttgctt 2820 atccacagaa aattcaaggt cagtattctc cctgcccgaa tacttcgcac caaagaccga 2880 gtcagcaggc gtctacgcgg agtgagtgtg gaaaataccc ctggagccat ctgcttcctc 2940 ctatactcat gcttcgcgtt atccgtctgg ctgaagacat tgtctttccg gtattcaata 3000 cgcgcggcat tgtagtacca atcggagcgc ttgtagccag gcttgttgtt gacgtgcatc 3060 caaacctccg gagacgaggt gatgagcact cgaggggcga ctcgggcgat tgggcctggc 3120 ccgattcaga actgtcagta tcgggagaca cggttgccag gtccttgtac catatttttc 3180 attagcctgg gcataaaact cgtggcaact gccccgaagc atggctatac tatgaggcca 3240 gttggagatg cccgtccagg ctggtcctct gaaacgcatc agcttcgcat acgtcatgat 3300 caccettaaa aegtagaggg etaagaggee geagageage gggatagegg gtteaegtaa 3360 agtggctagt ggcattttgt gaggaaggaa gaggtatgtt tgaactttaa tcttctgcag 3420 gtagaaaggt cagctaatta aggggtgaag atatcaactc tccttcatca agctacaatg 3480

tggtagacta atcttttagg cagtcatgtg aaaaaagga gacaaaagga ggggtaagaa 3540
aactgcagtt gcctgcaggg atgagatata agtacggact tgccctttta atgcacacac 3600
ggagtcatgc cactatatca ctagagaagc ttgaagccag cctgcagatc agggccaaga 3660
tcctcatcat aataatggaa tcgatctgat tggctgtttt gtcctcattg tgaatttcca 3720
gtaaagcagt cccgatcgtc gcctccactt gcttatactc ctacagcaat aaaacattat 3780
atcgactacc aggcctcttg tgcttcgtgg ggtt 3814

- <210> 850 <211> 5865 <212> DNA
- <212> DNA <213> Aspergill
- <213> Aspergillus nidulans
- <223> unsure at all n locations
- <400> 850

gggactattg ttcgaacttt gccttcgctg aggtcagacg atggatgcga tcatcggaca 60 gataaggtca tttcttccag tttcggctta tatggcgggt aattgcctgg tatgactagg gagtgtttgt tactatttca agtttcattc ccagttcgga atccatgcgt catggccttc 180 cagatttcgt aatgccttgc tgtttcagcg tactgattcc agcgtcttca agtatggtgc 240 tgctacgtgc cgagtgtggc aatcgaacgt cgtgtcctgt gctgactcat gctggtccat 300 tgtcctaaag tacggcccct taggctgcga gctgctgacc tggggaagacg cggaggttga caagegeace catgacgage taggggtacg ageacgatet atecagatta etggeggeac aggatttggt gaaaggggtg tgcatcgcgt tgcttatttt ctggggtggc cgacgcgacc 480 gttcctattc ggtgtgtttg gcttttgggt tgtacctcga acccgtgcca agacattcta 540 tatagagtaa ggcttggcat gggttgattg ctgcgctcga ccgacccggg tccgagccgt 600 atatatcaat atcaaatagc agctttatat ggtagcctca cgtcaatata aatatgtccg 660 ggcaaaatgt acattggttc acttgtttcg gtattgctat atgtttatac gcagtcaggg 720 tgcttggcca gattgtttta atggatccgc gctttgtata tcctttatat atattttgtc 780 atcaggttct gtttagtggg agtataccat cttcccacca actattaaat gtcaatcagc 840 aaccgccgaa gacttaaatt tggacacaaa gcacaaacta tacaagtact cccaatgaaa 900 tctaatcaca aagatatacc gacatggcgc aaagatcaag gaaaaagtgt cgagcgacgc gaatctatgt cgacagcatg ttaaggtaca cgccgcaacc gacctacagc aaaccaaąac 1020

aaccacgagc gggaaagaaa cacaatgcat acgtagggta cattagctac taagatgaag 1080 aataggtaga acaaagcccg gagccttcca cgctgtcact ccagaactca acgacataac 1140 caggaccatc agatcagccg actagccgca ccacgacgcg gacgcgaacg cgcgaccaaa 1200 acagagegaa gaeeteagaa gggagtatgg tgattaacaa ageeggttae gageattaet 1260 aggagcaagg gttgattttt tgatcgtttg tattcatatg accgcgtctc atgcagcacg 1320 gtcgtgttta gcccatggcg ccagccggga gcatgaaggc tatgatacag aaaaccaaag 1380 acgaacacta actggccagt agtggacgtg tgggaaatag taaatagaaa gtacgttaaa 1440 gcaaacccag agacccatga cacttgtgta ataaaagatc aagaacaccc caacgtccca 1500 gtcataccgt gaaccaaccc gaaaaagcaa accgtcgcgt cactgctgcg gaaggacaac 1560 tgacgcgccg accgcgcagg atggtggaaa cgaaaacaaa gcaagaaaga gcgcgcttaa 1620 ccaccgaaac cgtagagggt gcctgagagc ggacgcgtta gaaggaattg acgtttcacg 1680 ggcagaggaa cactcacggc cttgacgctt gagagcgtag acaacgtcga gagatgtgac 1740 ggtcttgcgc ttggcgtgct cagtgtaggt gacggcgtca cggatgacac cctcgaggaa 1800 ggtcttgagg acaccacggg tctcctcgta gatcatggca gagatacgct tgacaccacc 1860 acggcgagcg agacggcgga tagcgggctt ggtgataccc tggatgttgt cacgtaagat 1920 cttacggtga cgcttggcgc caccttttcc gagacccttg ccaccctttc cgcctgttga 1980 gacgcgttag gatgattgag atagcctcat ggtgatatgg atgtcactta cgtccagaca 2040 tgttgatgtg tgaagagatt taaggttaaa gttgtgaggt ggagataaat taaacgtcaa 2100 gtggacggcg agagatgttg agaatggaag accggatggg ctcccacggg acggcagata 2160 tttgtataga agacggaagc gcgtggggag agagctggaa tcactcactg tcggaggatc 2220 gaccaatcag agggcggggc atgttgatct gatgcgcggc cctagacggg cggtaacgtg 2280 accatgacgc agttgatett gcaagaggaa tttgategeg gegegaggae gegteaagae 2340 gcggatttga gatttgagag tgcatagtaa attcctacgt actacagaga ctcctggaat 2400 tcttctgata tcctaaaaat tcagggatgg ggttgggatc agtatgtaac tgggggacat 2460 tccagatcaa tgatcctgaa tgcttattgg ctgcccggga aagtctcgct tagcgcaact 2520 gccagcctga ccgccctggc ccgcaaccct ttcgatcttg ccagcaaaac tgggccgcga 2580 aatcactgct tatggtgtgc tggtttccgg acggtttttt tgatcaaagg aaagggcgct 2640

aagaccaccc ggctttgcag ccaaaccaca ggatcaccac ccgcctctcg cttactacaa 2700 ataccatece ecaceegeee cetecatett tettteatet ateettteeg acateetata 2760 ttcggccatc gactttccat caattctata ccattttcat ctcaaagccc cactaattcc 2820 atcaaaactc atcgtcaata atggctcgca ctaagcagac tgcccgtaag tcctcacttt 2880 gttgccctac ctctcgtgtc gtggtcgtgt cacggtcgcg tctcccaact gcttcacgat 2940 gctaacttta ccccaacagg caagtctact ggtggcaagg ctccccgtaa gcagctcgcg 3000 tccaaggetg ecegtaagge egeteeetee actggaggtg teaagaagee teacegetae 3060 aagcetggta agtaatacet atgaettggt tegtggttge gtetetaaeg taeteeaagg 3120 taccgtcgct ctccgtgaga tccgtcgcta ccagaagtcc actgagcttc tgatccgaaa 3180 gctccccttc cagcgtctgg tccgtgaaat cgcccaggac ttcaagtccg acctccgctt 3240 ccagtcctcc gccatcggtg ctctccagga gtccgttgag gcctacctcg tctccctctt 3300 cgaagacacc aacctgtgcg ctatccacgc caagcgtgtc accatccagt ccaaggacat 3360 ccagcttgct cgtcgcctcc gtggtgagcg atcttaagtt gtttttcgtg gttggttctt 3420 ctgggacggc gataacgggg ttcatctttt ctttttcatg actggcgata catgacgggt 3480 tttctttttc caatatcaat gggttcggca ctgggttttg ttttttctcg ctacgttaaa 3540 tagtaggctg cccattagcg gctggacgga ttctcatggg tcttgaatac tatgtacatt 3600 aagaatcttc cacatggtgt cttgtcgatg ccaccggatg gcatagacac gaattcagta 3660 tctatgatca aatcaactcc agtcgcccct attcgtcttg cagtaaccat aagacgtgtc 3720 ggccgtgttc acgctcacgg ctacatgcgt ctacagaaac aactgtgctt gacgcaaagt 3780 tetgatttee atcegetttg tgtecatgat egaatatgea gtgateagta gettaagtag 3840 tctttgtagg gtgatttccc tctgaggaaa cgcgatcgat tggattctcg tcagtcacaa 3900 tgcgaccgct ggccagtctc tgaactataa aatcaccacc cttgttcttt gacactctac 3960 gaaaccatgt actggaatat cttgaaccag taccgcaaca aacggctcat atatttgggt 4020 gcatgaatga aatgtgggac ttctgtcatc aagccttgac caaacgtgtc actatacccg 4080 tcaagttcca tagactggcc aattctgacc atgtaacaac cttgtccctt ctcgaaactc 4140 aatactacca ctcgacatct cttagcctta gacagcttag cataagttct gcctgtgtgc 4200 tgtttcgttc ctgctagttg gaagctgctc gaacggttcc cagacagggt tcccagacag 4260

acatgttctc atctcatctt cgttgtcctc gtcatcattc tcatctactt cgtatcaatt 4320 agattetgte etatgacaae tgaagetege tttettggge aegegeaaae ggaegetggg 4380 ccggatggtc tgcgacttcc ggctgtcttt acaataagct cgagtgcgtt atatacatat 4440 cattgctgaa cgcacagtat accttgccac taaagattca catcatccac tgcgtatctt 4500 cgacceteca eegattagaa agtegeatag tteactttat agaaggtgge gactttettg 4560 gatatatata teegtgeege tatagetgee tatagacata tactaggage caettatagg 4620 atgcaaatac atcagtggca tagtgaagct cagtggatcc cttcggatta agaaaccaag 4680 actgaggttc tttgttagcg tccaccgaat tttggctaag aatccgagag gcatcttcga 4740 gcacagtcta gcacaggcca taagtcgatc agtatgctgc caaagtatgc ttccgaattc 4800 cggccctaag gcaccaacga tccaacagcc aagcttccag cgatgagatt aataatttat 4860 aatcaaaaaa aaaaaaaaac aatcccaaac agaaacagaa ataagttgat catattagtt 4920 gattctagca aaagccccga gaccaaagcc cctctaccat taagtgaagc gccaccagat 4980 gaaacatttc caggatatac ctcggcaaat ctggtcaggt tgcagcataa ttattgtaat 5040 tattggatga ctcagatcag tctatccgac agttgttcat aagcctcata aatcgatcta 5100 gacgtgcccc ttaacggtct tcaccaggca cggtgggtca gaatggggtt gccgcttgct 5160 aagttttcta ctttgccgag gtcccgaaag tgacgggtcc actgtttaga tagaggttac 5220 ggcttacgac tcaggctggt ttgtccagac cgagaccgta gtgtacagag taggatcact 5280 aatteetaaa tagtaactag taagatetaa atagcaatet etgagaagta ateaetatat 5340 aggaaccatt aataaagaat aatctctaaa agggacccga attcaaggtt ctgatttctg 5400 gatcgtcatt gacgatggaa gagcggcctc tgagggcgaa agagtcatga ggcctagctc 5460 gataggacgg ttgcactgca ggtcatgggg ggcatggggg gagaattact tacagtaccg 5520 aactagaatc tgactgttat tctagatagc caccgntaga gggccgccat acccgagtcc 5580 caatgcagtt taatgccccg gtgagccgat tggggactgg gatgaaccgc ggtaaagtgc 5640 ttaatcccga tcagctgaac ccaactttga ctcttaaggg aggcttatta aaaagaccta 5700 attitigtatt tgcccgcgaa ggtttatgcg aaattitttig cgatggttaa cggttcccaa 5760 ccgggcccgg gggaggtttt ttaaaacaaa tttttggggt ttttttgaaa actttatggg 5820 5865 aaaaattggg gttttacatt tgggggtttc cataaatttt ggggg

<210> 851 <211> 2818 <212> DNA <213> Aspergillus nidulans <400> 851

ggtcggtacg tgtcttccat cttgtggttt caggtctcct attcaatatg gataactgta 60 tatattaagc aaagctatgg tccacataaa tcagatgcgt ctttagctag atagcacgta caagtacata aatcataaag taccatagca ggaatcgtcc ccagtagcag agcgtaagtg 180 caaggcggca tcgagacgga cagaatgcgt ccaacaatgt cagccacaag ccaggggatg 240 gataagcacc gttcgcaaca ggcggcaccg aacgaggatc gtgtatagcg aaaatgtaga ttccaaaata agtgcactac gttgacagct gtcgacaggc attttttgtt cattgagcct taagctctgc aaaatcgccg gatactaact gcaataatac cactccctac attgctagag taggccccct tttatcttgt ccaaacgtta gtggcatcca ttcaagacag ctttcccatt agetegegee tecagaagge teggtggtgg tggeggeeca aacaetgget tetetggetg ctgaggcatg gtgtgatctc cgctggcgct ctcgagctca tactcttcgt cactaatacc 600 ctcctcatcc tcttcgtctt cgtagtcctc ctcatattcg ctctctgttc cttcatcatc 660 gccatccaaa tccacagcta gaccctgacc acggccctga gcttgcatcc gccgacatag cgcttcgaga tggtggcttt tcttccgcca tttgtcgagt tcttcgtgat ttcttgtgcg ttcctcagcc atttccagta tgttacgatt cgtctgatcg tgcttgcgag ttagagtgag 840 atteteettt tetageetet tggtettttt egacatetee teeatetett tgeggaaagt 900 caggaacagc tegttactgt tgttcaaagt atectegace tgaaatatta ttattatega 960 gattcagaag tagacgcaac ccatcatacc tgtttgaact tttccacata gatattcagc 1020 tgactgcgca attccgattc ggtgtgcgaa aatgtagaca cctgagagct cagcgcgcga 1080 cagcgagcag cctcattttc cgctgcacga cgctgttctt catacttggc ggtgagacac 1140 tggatttcag catccttgct gcgtaataac gacttatagt gtaactcgcg catctcgaac 1200 ttttcaccaa tggtcttaat cttggctcgg agactacaaa agatatgtca ggcaacgcgc 1260 aaaaaccgag gagctacgac ttacgcttcg tccaggtcaa tgtcgatttt ctcgcttcga 1320 ggattaccet tegeageeat cacatettga atgtegtaca gaagagagte gagtegetea 1380

ttgacaatcg cgcgggcctt cttctcgttc tcctcgagtt tcttattctc gtcctgcttg 1440 cccaaagatg gaacattagc caagtgctaa tgataccagc catatttgta gacccacctt 1500 gactttttta ttttctttag tcagttctcg acaaagtttc tccagtttat ctttcatagt 1560 gaeggtettg tteaacteeg atttteettt gteetggtee ttetgeaget gateegeeeg 1620 ctttttactc ttggcatagt cacggtctag tttcttcata tcggccagaa gctcggtgta 1680 cttcttatgg acagtttcaa ggcgggtcat tggggattcg atattggtca agagctggtt 1740 gaggtcccta gtcgccttct tcacttcccg ttctataatc acatattgtt agcttgtgtt 1800 gccacgcaat acctgaagaa ccccactgtc acaagcggaa caccggatgt gaacacgcac 1860 cgatttcctg ctcctggtct ttttctcccg ccgcatcctg ctctaactgc gaaattttgg 1920 eggegagaag ettggaegte tegtttgggt eggegaeeet tetteeeett gtttttettg 1980 gacatggccg tagtcgacat agtcgatgag tccacttcgt agaatgtcca gctggcgtca 2040 ggttgcggga cgtccggcag aggtcgcgtg gtcgatcctt ggaaagaaaa atgcgaacga 2100 aacggtgtga aagtggtgag gcgtttaatg tgtgaccgaa aattaggaag ccacgtcgac 2160 aaccaacgta agaaagatcc gtgtaagcaa tgcagcttct ggtagctacc aaggcacagc 2220 gtgatcaacg gtaagtettg aattecacae ttgcagtgag eggagtacet tggaetteta 2280 ggctcgcaga actcggagca accgggtctc cggatcctac agcaaccaag tcctgcaaag 2340 ccgacaaaaa agtccagaaa cctaacagga gttgtcgaga cctggtggag cgaaaaccaa 2400 ctggcgagta gcaacgagtc aagaacagtc ggtcgaggac ttgttggaga gatcgaatcc 2460 aatctcgcaa gtcggagggg gtgactaaca ctagcccgat tcggaagtat attcttggca 2520 ttcctcgctg tttgtcatcg cagccgagtt cccgacagcc agcctcgatt ttcctaccat 2580 ctttctctct ctctttagaa ttagacggcg gttgtttgga agcaaatatt gattgcctta 2640 cgtctgcgct atttgctcac attttaacta attgctttgg tcccggctgg accggtgcca 2700 acttcaactc ggcatcaata agttgtgcta agtcgtgctc tacgttgact cgaatcattt 2760 tatcacatct ctacgatatg ctccggtcat acttgcacct aggcaggcat cgaacgcc 2818

<210> 852

<211> 5921

<212> DNA

<213> Aspergillus nidulans

aagctcactt ttgggagagc tcgggccacg catgctgtgc acacgatgcg gatcgggtcc 60 agttttatcg gatgtactgg tacaaaggag ggggtgctaa atcaatgaca tggcgtaact 120 gaggtgtctt acaaagacta ggatgaacac cagcatggcg actatgcaca agatacatga ccaatctcta gttcctatga tgtatatgaa gaagattgag aatgtgacag ctttgaggga gcggcaaaag aagctccgta ggaactgatt acggcagaaa ttgatatctt aggcaatgta 300 tctgcagacg gagagcaacc tatgaaaggc tttatagtca gggctcgcga cattgatgca 360 tactcgttac agcccctaat cagagtctga tactcggacg cgcatagaca gcaagacaca gacattgacg ctatcaagat catgcattgg caagacatat gattatattg acaaggtttt cgcgcgaagt gaatatgagc ccatggagct gtttgattac tacttcccgg accttgttgc 540 caagctcgtc acgaacaggg acaaggttgt ctggaccact cgctggcggc gtgtggccga 600 agacgccgac gctcgtaatc tagtggagag cgagatggtc gaagccggac atcgcggtat 660 actggacgag atccgcggca agacagtete tegtgacaat gattegggte gaccegagaa 720 gaggatcaag atggatctta tggacgtcga cctgcccaag gcccctgctg ctgccgagga 780 aaagaagacc gcggacggtg gattggtcag agggctccag cccaaacgct taatcaacct 840 ggaaaacctt gtatttcatc agggtaacca tttgatgaca aaccccaacg tcaaattgcc tcagggttca acgaaacgga cattcaaggg gtacgaggaa attcatgtac cgcagccaaa gtctaagcag gagccaggag agaggaaagt cgcaatctcc gaactccctg aatgggcgcg 1020 tatcggattt ggggatgcaa aggagctcaa ccggatccag accaagtgtt acccctcagc 1080 tttccaggat gatggcaaca tgcttgtctg cgctcctacg ggctcaggaa aaaccaatgt 1140 ggccatgttg agcatactcc gtgaggttgg aaagaaccgt aactcccaaa ccggagagat 1200 aatgettgae gaetttaaaa tagtetaeat eteeceettg aaggetettg teeaagaaea 1260 agttgagaat ttcggcaggc gtctcgctcc ttacggcatc aaggttgcag aattgaccgg 1320 tgaccgtcaa cttacgaagc agcaaatcgc cgagactcag gtcattgtca caacccctga 1380 aaagtttgac gttataacgc gaaaggcgtc agagacgagc tataccaagc tcgttcgtct 1440 aatcatcatt gatgagatcc atcttcttca cgatgagcgt ggacctgtca ttgaaagtat 1500 tgtcagcagg accatccgac aagtcgaaca aaccggcgat gccgtccgaa ttgtctgtct 1560

cagtgcaaca ctccctaatt accgcgatgt cgcaagcttc cttcgtgttg atcccagcaa 1620 gggtttgttg cactgtgaca ggtcttaccg accatgccct ctaaaacaag attcattggt 1680 gtcacggaca agaagcccat caagcaactg aaaattatga acgacatttg ctacaataag 1740 gtaattgagc acgtggggca aaatcggaac cagatgctca tcttcgttca ttctcggaaa 1800 gagacagcaa agaccgctaa atatctccga gacaaggctc ttgagatgga gacaataggt 1860 cagattctga agagtgactc tgcaagcaga gctattcttg .ccgaagaggc tgaatccgtc 1920 aatgacgccg cccttaagga tatcctgcct tacggcttcg gtattcacca cgctggtcta 1980 agtettgegg ategtgaete ggteeaggeg etetteaaag atggeagtat eeaggttett 2040 gtttgtacag cgaccctggc gtggggtgtg aacctgcccg cgcatactgt tatcatcaaa 2100 ggaacacagg tetactetee egagaaaggt agetgggteg agttgagtee teaagatgte 2160 ctccagatgc tgggacgagc cggacgacct cagtatgata cgtatggtga aggtattatc 2220 attaccactc aagctgaaat ccaatattac ctctcactca tgaatcaaca attgcccatt 2280 gagagccagc ttgtgagcaa acttgcagac aacatgaacg cagagattgt gctcggaaac 2340 atccgaacac gagacgaggg agtcgactgg cttggctata cgtatctgtt tgtgcgcatg 2400 ctgcgctctc ctggtctata cagcgtcggt gctgactacg aaaacgatga cgctcttgag 2460 cagaagcgtg ttgatcttgt gcactctgcg gcggtgctcc tggaaaaggc tggattggtt 2520 aagtatgaca aaaagactgg acggttacag tctacagagc tggggcggat cgcgtcacac 2580 tattatatog gocacaacto catgttgaca tacaaccago atotocaaco atocatogga 2640 aacattgagc tatttcgaat cttcgctctt agcgatgagt tcaagtacat tccggtccgt 2700 caagatgaga aactcgaact ggcgaagatg cttggccgtg tgcctgttcc agttaaagag 2760 ggtatcgacg agectcacgc caagatcaac gttttgctgc aggcgtacat ctcccgactt 2820 aagctggagg gtcttgccct gatggcggac ttggtctatg tgacccaatc agctggccgt 2880 atcctccgtg ccctgtttga aatatgctta cggcgcggtt gggcgtcggt agctaaaaat 2940 gcccttgatc tttgcaagat ggctgaaagg cgtatgtggc ctaccatgag ccccttgcgc 3000 cagtteccgc gatgeectag ggatatecte caaaagteeg agegaatega egtgeettgg 3060 ggcagctatt ttgatctgga ccctccgcgc atgggtgaac ttttgggcat gccccgagcg 3120 ggcaaaactg tctgtgacct agtttccaaa tttcctcgct tggaggtcca ggcccaggtt 3180

caacccatca ctcgctccat gctaagggtt gaattgacga tcactcccaa ctttgtctgg 3240 gacgaagaac tgcatggtac ggcccaggac ttctggatca tggttgagga ttgcgacggc 3300 gaagagatet tgtteeatga teaattegtt etgegeaagg actaegeega gteggagatg 3360 aacgagcate ttgtegagtt caetgtteee ateaeggage eeatgeeeee caactattte 3420 atctcccttg tatctgaccg ctggatgcat tcggaaactc gcatcgccgt gtctttccag 3480 aaactaatcc ttccggagag attccctccc catactcctt tgctcgatat gcaacgggcc 3540 cctgtgaagg ctctcaagcg tgatgagtac cagcggttat accctgattg ggaatacttt 3600 aacaagattc aaacgcaaac gttcaagact ctcttcgaaa gcgacgacaa tgtttttatc 3660 ggcgctccca cgggcagtgg taagacggtc tgcgcggaat tggcgatttt gcgtcattgg 3720 gccaaggaag acagtggcgc gcagtctacg ttgctccatt ccaggagctt attgacagcc 3780 gccttgagga ctggaaaaag cggctgagcg gcttggctgg tggtaagagt attgccaagc 3840 tgactgggga gatgacagcc gatctcaaga tcctcgccgg ttcagatctt gttcttgcta 3900 cgcccaccca atgggatgtg ctttccagac aatggcagaa gcgcaagaat gtgcgcgctg 3960 tggagctgtt tgttgctgat gagctgcaca tgctcggtgg ttacggtggg tatgtctacg 4020 aagttgtggt ctcgcgcatg cattccattg cgctccagac cgagagcggc atgcggatcg 4080 teggtetaag egtteetete teeaatgete gggatategg agagtggatt ggegetagea 4140 agcacactat ctacaacttt agtccccatg cccggccagt acccttggaa ctccacatcc 4200 agtettteag catacegeat tteeetteat tgatgttgae aatggeaaga ceageatate 4260 tetegateet geagetgtet geagataaac eegeteteat etttgtgeet aaceggaage 4320 aaacccgcgc tactgccatt gatcttttga cagcatgttc tattgacgac gacgaagacc 4380 ggttccttca tgccgacatc gaggagctgc aaccgttact tggccgcgtc catgagcgta 4440 ccctggcgga gtcgctctca catggtattg ggtactacca tgaggctttg agtcagactg 4500 acaagcgcat tgtttcccat ctctacaaca tcggtgcaat ccaagttgtc atcgcctcac 4560 gagatgtctg ctgggaactc aacctcaccg gacaccttgt ggttgtcatg ggcactcagt 4620 tettegaggg cegtgageat egetatateg actaeceaat aagegagatt etecaaatgt 4680 teggeaagge ttetegeece ggteaggaea aagttggeeg aggtgttett atggteeega 4740 cggtcaaacg cgagtactat aagaagttcc tcaacgaggc gttgccggtg gagagtcact 4800

tacageteta catgeaegat geettegtta eegagateag eeaggggaea attgeeteea 4860 ctcaagattc cgttgactgg ttgacgtaca cttactttta ccgccgcctt ctagccaacc 4920 ccagcttcta tggtctcacg gatataagcc acgagggtct gagtacattc ctttctgagt 4980 tggtagagaa caccttgaag gagctgtctg aggccaagat cattgatctg gatgaagagg 5040 atgacagtgt ttcacctctg aacgctgcat cgatcggcgc gtactacaac atttcataca 5100 tcaccatgca gaccttcctc ctttctctgt ctgcccgaac gaaactcaag ggcattttgg 5160 agattgtcac agcggcgacc gaatttgagt ctgtccagat gcgccgccac gaagaacaca 5220 teettegeeg agtgtatgae egegteeetg teaaaaegte acaggtegee ttegaeteae 5280 cgcacttcaa atcctttgtg ctgcttcaag ctcacttttc gcgcatgcag ctgcctattg 5340 atctggcgaa agaccaagaa gttattgtta gcaaggccct taaccttctc agtgcttgtg 5400 tggacatect egeeteggaa ggeeacatga aegeeatgaa tgeeatggaa atgtegeaga 5460 tggtggttca ggctatgtgg gatcgtgata gccctctcaa gcaaattcct cattttggcc 5520 ctgaagccat caaggttgcc aatgagtata agtatgttac tcctgcttta tatgctaaaa 5580 ctcgttctaa catttgcatg attagtatca acgatatctt cgagttcatg gatgcgatgg 5640 accegteega gaacaaagat tacaatacce tagttaageg teteaacete gacaacaaac 5700 aattggcgca ggcagctgcg ttcaccaaca acaagtaccc tatcctagaa ctcgactttg 5760 aggtcgagga cccggaaaac attactgccg gtgaacctgc gtacctcaaa atcaaggttg 5820 agegggaggt ggatgaggat gaagagtttg acacgacagt gcacgegeet ttetaceeeg 5880 gccaaaagat ggagaactgg tggttggttg ttgcgacgag a 5921

<210> 853

<211> 1737

<212> DNA

<213> Aspergillus nidulans

<400> 853

tetecactic aaataaagag aaagaaagta ggagtgeeta titaaaatic aaagaatita 60 gattitegee aaaaacataa aaceegggat ageatataat aaceggaatat geeacegeae 120 ettaccaaaa aaaatggtee ettegggggg agaaactagg aattgtitgt titaaagatae 180 aaaaaaaaaa atacggtggg tggaatgtgg ettacetgta aaaaaaaaa gegaaaattg 240

gaaatttcga aacagccaca gcgggaaacc aagagtggtt agttggacag ccttgtggag ggcagagccg tatccattaa tattgcccaa aaaagagatt aaaaactttg ttaggttggg tgtgtgaaaa gttaagattg agcatattaa atatcgccag aaaaggatgc gacttacgga 420 ataagtcaag ttgagggtag gttttcagaa tccggcattg tttgacccgt aggggcacta 480 540 gcagatgttg agggtatctc gtagcgaaac gaactgggct tgggcaacgg gaccgtagta ccaagtgcag tagcaatact cgaaagagcc tgggagcgcg tcatactata aaacatcttc 600 660 gagaaatcca acagttgctc gcggctatga atgggctgca gataggccga ggaaccgggg 720 tagtaggggt tggtcgcaag gcaatcgtcc ggcactgcta cgccggcttg gatttgtgcc tgttccgtcc atagcttctg cggatcgagt ccagctttct gccatgcttg ttggcgcagg 780 cggcgaatca tatcccaggc ctcacggccc cgtctttcag aggtcgctga gttgttacgc 840 catcttcgcc tccgacgacg cctccatccg gcccggtgag tgagaagatt ttgtctacga 900 acgcgcgagt cttcggggcc tctgggctgt agggccgctc atagagatca ataagcatga tcatagtagc gtgcattggc tggtggttcc caggccaact ccattgaaac ggctggaaat 1020 cagggtccgt ggcaagggag atgaactttt ccatgaatcc atgacaatgg cggagtgcgc 1080 tacagaaatt agtttgggag tactaaacgt gggctgtggc acgaaccttt gtcttgcagc 1140 tggccaaatc cggctcctgg cattcttaag gaaaggctga tatgcaacgc aatatgccta 1200 tatccgtggt gttagaggtt cagtctgctt agtacttgaa ttatcactta ctttgtcaac 1260 ataaaggctg aggacgatcc ttgcccattt atgataagct acaagaaccg gcgtatgata 1320 ctgctccgta caggtaggag ccgcgtcgcc cggaagtgcc tgatccatgc tcaacccttc 1380 tgttggagac cgtgagaaag accaggatct attggaagta ttcgagggga aatcagtctg 1440 totagectet ggaateeget caactattga gtteagetgg acttggaggt egaegaggat 1500 tgatctcaat tcctccatgt gccgccgtgt aacaggcttg gttccaagtt gaatcctcat 1560 tatccgacgg acagcgcctg gcacacatta aaagttgttc acatcacagt tctcaagaca 1620 gtacttacgt gccatgacat atttgcctcg ggctgccagg tagtaaacat tcaccataga 1680 tggaccgcca caaactgttg ggtcatcggg attactcgag ggcgcaacca gctttga 1737

<210> 854

<211> 2301

<212> DNA

<213> Aspergillus nidulans

<400> 854

gctgagcatg tgaaaattga taccaatgag actggccagt acttttcatg gtgatgactc 60 gagettgeag tecaaagegg tttactgtaa tggttgttat getggatatg tgcatgtgae tgggtgtcaa gctgcttagc gcgtcttggt gcaatcaaca ctcgacgcac ccgcaccctt 180 cgggcataca attacgaaac acaaccttct tcatgacagc ctccttctaa cagacatacg 240 tagctttcac tggaagaatc tcaccaatag caccattacg atgcctgcga agcgaaagca 300 ttcgggcaat gcgctcgacc aagacaacga cagtcggcgt aagaggtctt acgcctatct 360 aaagccccaa gtacggcata tatcagagag aacgatcaag tccaaatggt cgacgctccc 420 agaaccaatg caggacaaga tccgtgatat gctacaagcc ctcgaacgtc ctgtcatcgt 480 ccggcaacag aatgagcgga aacgctacga ggcacaggca gctgttcagg ctgttgtgaa 540 gaagtacggt agctgtgctc ataagctatg tggatatgtg ctaattgccg tgcgtacttt 600 ctagtcttgg aaagcgactg cctcgaatgc cttttcctcc gatgacgaaa gactcagtat tcgagtacga agcggcgctt aaggaacatg tatgtgtcct tcaccaagca gcggcatgca 720 tacgtactga ctctcctatt cagagegege tagaagette tetgtetaca atgaatgaca 780 gcatcgttct gttgaacaat gagattgcaa aggaggaggc gtttcttgcc aaggaaacga 840 agcagttgca ggagatggag aaaaatgcta agcgcgcaga ggcagagcgg aggaggctga 900 tgaaaaatgt atgetgette geggeeatag gttttttaae tggegetaat tgategeagg 960 aacatcccgc tctgcgacag ctccgagatg ttcgcgaaca acaaattgag gctccgtctg 1020 gattcaattt gtcccatgcg aaggggtccc agctagactt cagtgaagta agttctcagc 1080 ccctggacaa cgtgctcctt cctaacgtct ttctctatag ctcgaggccg acccagaggc 1140 ctccagtctc ctaaagcagt tgaacaacca cctgaaatca atgcagagca atattgcacc 1200 tcttactgga cttaaggacg ctattgaccg gtctcagaca gctctaagtc ttgcaacctt 1260 gcccgatgac tgagccatgc ctttagcgat ttcaaagaag cgcctaggac attctcatga 1320 aattaggcct ctgccgacta cgactgtact tgcacccgac tattagaagg gtacgcaaag 1380 gcgaaaatgt ccactgtccc agtgctaggt cgccaaagga tctaggcagc ttgatcttca 1440 gttgcgaggt gcagtgaact ttgtacaaca gctggctacg cacagaaacc acacccttgc 1500

aaaggtacct gacgctagg ggtacactat gatgaaacat gcaataccac gaaactcccg 1560
cagtggacta gaccctaggt tcaaacaagc cgattctggc taggcaatag cgttatgaag 1620
ccgatcagag ggttgtttga ctcatttgga ggaaatgttg ttcgaagact gtcagcttgg 1680
gccatgtcgg cccaagcgct ctgccaagct cccgaccgtc tccagaagag gacgcatagc 1740
tcaagcagca agaatgggaa tagaaggtag atctacaaaa ttagtaaata agaccgaggc 1800
atttagctgc acatggattc gggaaagtgc tccgtaggca agatcttccg aggctgagag 1860
ccgtttttgc ggagccgcct gagctcttta aaaaggcggc gtttcccaat gcggagcagg 1920
tcgggagatg aatttggctg ccgagattcc actccactac cagtagtgcc tgtgcccaaa 1980
gtgcctgtga gtcccgctca atcggcggg aaagtgtgt cgcatgtacg tatctccagc 2040
ttcacgcttg ttcgtgcagc tgaaccgatg atctcgtct ccttctcgct gaacccacgt 2100
cggtgcctgc aagtgccat caccctcttg tcccttgtgt tcccaaccca acagcgacga 2220
aaacactacg cagccggtt cggcccagac cagtacgcc gcaatggaac ggcggaaaac 2280
acaggcccca gcaagacttt g

<210> 855 <211> 2093 <212> DNA

<213> Aspergillus nidulans

<400> 855

cagaagactt gccaataaca tcaagtacat ccacaacatg aggctcgtat tcgcgaattc 60
cgttctgtgt cataggagca ctaccgctaa cagttgatgc tcggttcctg gagaacctat 120
tcaacgcggc ttcactcctc ctccgcatag cactcctgtt gtccctcagc tgcggcagag 180
gctgtgtagg ttgtaccgac ggtctgacaa attccgaggt tggacgacgc ccactagcag 240
gactttgagg ctcttccatc acagtatgca tctgcccgcc tggctggagc cgtggaagag 300
tcgctggggt tggtgcagac caccgtcctg gccgaggctc agagttgctg cgacggcggc 360
cgccttcaaa cgggtcgctc ttctcttcga cgggagacgc tgcgccacgt gcaactgacg 420
cacctgaacc aatgtttctg atgtcgacat tgctgctgct aggttgaggc gaggcgatag 480
accgaatgaa cgagggcggg cgcgttaggc gaattgatga gcggttcgag tgatttgagc 540

ggactgaggc cgcacgccgc cgtccagcga atgtccgatg acgtcqtttc ctqtqcaqqa ctcgccgatg aagcccgtcg cggctggggt tggggaacat taagatgatc cggagacggg cctgccggct ctatcggatc cattgagacg gtttggcgtt agaaqactga tgaaqtgagg ggatggagag gaaaaggaag aagagaacca agataaagaa gcagcattag tcaacccagg 780 ctcgaacgtc ccgctgaacc cgttgaatcc cgccaagagc tgtggcgctc atccagaaaa 840 aacagccatt caagctgaga gcatggagat cggcatgaca ttgtctgtgc gcttttgaaa 900 gtccatttgg cgagttgatt gcttgagaac aaggctctta caaagatgat gaaacaacat 960 tetteetgtt ggegettagt tetetattte gaggtteege tttttgagag tttegtgeet 1020 gaggcatatt tatgtaattc tatacttcaa aagagctgtg ttattcactg cgctattcaa 1080 atacactett ttetgeteaa etettttaet eaettgaget atttgattgt ggaagettta 1140 tgatgtgttc tctttcattt cttcctttcc tacgattcaa acctttctcc tcactctggg 1200 ttcaattaag tctcaggtgc ccaggcatac agctagtaga agaatttgtc taccaggtga 1260 gctagccaca tcccttttcg cttcttttca atctgataca atactgatcc tccttctagt 1320 gttcaatcgt ggcacgaatt tcttaatgga gaggaaacgc ctttcaggag tcgaaagccc 1380 tegteeccag geteatgaga acaatgegae tagtaateaa ggaaacegtg tecateeate 1440 gggaaaacga gtcttcgaag tctttggcac tcgtaatagt gccagtgtca agtcaaacca 1500 ttetttateg aagaaagegt eteettaeae egataagtte ttegetaaeg ttgeggaage 1560 tatcgttcgc agcttcccat tcacggagtt cgcaaaggaa aatagttgtg agatcaagga 1620 tgttgtccga gcacttaaag tcacggttgt ggaacctctc tccaagccat cgatacagaa 1680 aagetegaet eetgeagaat aegeteaaeg egageetgeg aegeteggtt etgeaeette 1740 aattcccctt cctccagtag atccgcaaaa tagacgttgg atagtatctc gtcaacctgg 1800 acaaacaaca ccgccatccg caacttcagg gagcacacgg tttagtccat ccaagcgtca 1860 cccagggaga agtcagaagg gaaaagctgc agagtatgtg cagaacaact tcaggtttga 1920 ggtctcatcc acggctacct ccgagccctc catacttctc aagggtggcc gtggagtcaa 1980 gagacgcaag acgatggttc ctgttgaaca acagattata aagcaggacg cctatggcaa 2040 ctacgttcct gtcaaatcta taacaacggc gagtggtcgc tttggcgatg atg 2093

<210> 856 <211> 2558 <212> DNA <213> Aspergillus nidulans

<400> 856

aatctggtga gagtttaatg gaagcggtct aacagacagc cggcaccgaa ggtttgccaa 60 cgcaaaagcc ttctacgcat cgaacccgga aagttatgta acaaaatgcc gagggtcagg gcaaagggta cagggtttct ccagctttgt atgtcgcagg ccacgagtgc ctgtccttct 180 accacgetta catataegga cagteageea cagegttaae,teegegeagt caaagetegg 240 atgctacggc tagctgatgc atccatcgat gataatgcca acatattcat cagcacaata 300 gtcggtttat tttatttgtc tgcaggttct gttgctgcta gttgtcttqq acacaacqqa gggaggaata tggaggcaca aagtttgggt ctcttggaat gaactccttg tttagaggcc caaatgatcg agacttgtaa gatcgaagta gacctgcatc ttttgctgca gcagtgctgt 480 ttatctgtct cactatggaa attctgtatt tccttcaaac gtcgagaagg agaaagaagg cagcttaaag caggtcacct ggagaagagg cccagacact cattaacact ttttcaattc ttttcattag tgtttcttca aattccattc aacgagttat ccaagattat tgatagaggt 660 tgtcgtctct cagatcaaat tgagctatct tacgcctcag gcagaaaata attaccgtta 720 ggtactagaa tcacatgact ctcacataaa agcagatatt gttcgtggat gtgatttggt ttttttgaga tcttcaactc tttcgaatat tacgggggaa aaaagctgcc ctgaatgctc 840 ttgtggtggc cagtctatcg tacgctcacg cttaatgccc ttgggaaatg ttgcgtacga 900 caatcgccta gtaatcggtg aggtataatt cgatcgaaga gctacaccaa ccacagcata 960 caaaatggca gactccactt cattcgatga aaggcctgct gctactatgt ccgccatgct 1020 gagcaaggac aaatcaaaac gtctgtcaaa acagaacatc aaccccctcc agaaatgcat 1080 aggagatttc ataaacacgc atctctcgca atctctatta gcgcaacatg ccgtaccact 1140 cgaggagctg gtctcctcgc tccccaaacg atacaccata tacgagccca tgctcctgct 1200 teegetgaae geetttaeee acceteegge etgggeeaag etttatgaag gtttagatga 1260 caaccagcgc cagactetgt acgcetecat cgcgagcgcc ttetegcgat atggggtaac 1320 acacgttgcc atgaacgcac caatcgtgct tacagacact caaggacatg agaacaggat 1380 gcgcagccta tcgggctcat cacgctgcat ggagatttcg gaccagccac gtcgcgggat 1440

ggcgaggata tccagccctc ggaagatgat tacaagcgcg cattctgggt ccgtactgtc 1500 cagaatcacg ggatcgtaca gatctgggct ccgctgcata ccatgttctc tcggggaaat 1560 gtcactgaga aggcccggat actggggcat gggtctacgt ttgaggggtt agatgaggta 1620 tegetteatg ggaagacage tggegatgte geegteateg atatgtaege egggateggg 1680 tactttgttt tctcgtatct gaaacgcggg gtccagaggg tttggggggtg ggagatcaat 1740 atcagggtgg gaaatgatgg ccagctgagt gtgcctgttg acgagctggt cgggggcctt 1860 tgtgatactg atcgggtggt gatttttcac ggagataatg ggtttgcagc ggggattatg 1920 cgtcaggtta gagatgctat ggagggtcgg caagggtgga ccaacatcag acatgtcaat 1980 ttggggcttt tgccatcttc cagcgacgct tgggatggtg cctgcaggat cattgacggg 2040 gacaaaggtg gctggctcca cgtgcacgag aatgtcgatg tgcaacagat cgaggtgaag 2100 agaggegaga ttacegeeac egtgeaaggt etetggaetg agtetgegte ceagattgeg 2160 aatacggagc cccgtgctga atgtcggcac gtcgaaaaag tcaagactta tgctccaggg 2220 gtaatgcatt gtgtttttga cctacacctc tcccatcaag agatttgcgg caatgcgcca 2280 tgatggtacg gagatatacg caatccacat cgcatattgc cagcatttct gatctgaget 2340 gtcattggga tggtatctat catcttatat gtgtgtaaat aacgcccgca acaactcaaa 2400 catttaagcg cccctgggaa tacataaaat atacatgatc acacacgccc cttgcggaac 2460 ttcgccggaa tattagccgc gacaatggcc atacgttcaa gctggtccaa tttctgcatg 2520 2558 gcctcgtctt cctcgtcatg cctctcgcac cgctcccc

<210> 857

<211> 4023

<212> DNA

<213> Aspergillus nidulans

<400> 857

tggtatcatc cagaacgcgg gcgacaagct attgcatgac gattgatttc aattacttct 60
tcatcctgtt atcttctcgt acatatctac tctacttttt ccccagccag cgactgtcac 120
cctacatatc tattctcttc agggttctat cctatcttca tattagacta cgcttaccac 180
atcctacctc ttctccgcgg tacatatata tatgtatatc acatctgtca catctgccat 240

300 ctccctccta tactatatat accattctat tgccatcaac catctttctc cataatcaaa ctactaaata tcatgtatct gccttgattt caaccagcct cgaaagcatc aaaagaacga 420 ttcaggatat atctttctgc ctcaagttcc tcttacatga acagcctata gtaccctcac 480 aactcctcaa cgaccagaca tgtccaaagg tatttttgca ttcgtaaata tatcgtgtcg ccattatact tcgtggatcc gaaccttcct accaatcatc tacatctact actgatcact 540 tatgcatacc tagctattga gctctctttc tgcatctaca ttaaaagtca gtaaattcat 600 cgcctgatgc attcgcccgt gtatcaagta aaaaactgtt ccgataaaga ggaaacggac 660 caaatccatt tcgattgata tcctacgtta ataggtatgc tcactatcct gcgctccaca 720 tgcaagcggt gatggaagtg attaataagt aaaataactg aagcaagtcg aacttcccta 780 aaaacatgaa tatgaacttg aaaggactcc tgaaggcgta agctgacctc cccataggct cgtgtatggg cggacggaga acaggatgaa gataagaggg aacggataga aggagataga 900 caagcettta ttegeggtae geeagtagta tgatatggta tgtacteegt attggagatg 960 tatatacagg actgaaaaga agagggacag acgggctctt caagggaaga aacgaaggcc 1020 aacaatggga aggtgcaaga gtgagatata aggagattgg ttttgtggat ttattaatag 1080 eggatecatg tgatgetttg tttegteage etggatgeat aatgagaagt ggeteeatge 1140 tttcagatta atctcggggt accgagcaca aagggagtag ggaccagtga gcaacaagaa 1200 gattagttaa ggcgataggg aatgtgccag tgtttgctgg ccagtgttct gataaagggc 1260 cctgctttag ctagtcaact gcataaaagc cggatcgacg gcagcaggtc ccgagacatt 1320 ttccaggtgg gtcacttccg gaagccctcg acgcccagcg taggtgtttc gaccatccgg 1380 tcattcggca cgccctcatc gcgcctccgg gagaagaaac tgtcacactc agacacgatc 1440 tgggcccact ctgcaagagc acgtcctgcg tacttgctgg acgcaatttt atcatcagcc 1500 geggetgtea aategttett eggggettte ttaatetteg cateageate agteaegtte 1560 tgtttcacgc ctggggcaag cggatccttc tcagcatcct tttcggcttc agagtcggtt 1620 gtgtcatccg aagttgtatc gctatcttct gatttgagcg ttgaccttcg aagttgtaga 1680 tytaactgtg aagcgacagg gagggaggga gtatataatc gtttattctt gctaggccat 1740 tgtggccgat ccatccattc cagggagaat ctgaatgtat atggttgatg tggagttttt 1800 ggtctttgcg attcactagg gttattaccg cctcgccagc tgacatctgc acctttctcc 1860

ccagtggcag aggagtcaga cactgttgta tccgattcat ctgagctggt aatgggagac 1920 agetetteat tggaacgega ggegecaaag aeggetttea atatgtteea tegettttte 1980 gggggattet gageeteaga aacateatet geetteatag agatgetget egtggeetga 2040 ttaggggccg acgcgggcag aacacgatcg aaggacatga agagattcga aggcgacatt 2100 ggattgtcgc agcgaataat gattatccgg cgccctggtg cgggggtaca aggtgcagaa 2160 gataatggtg ctgcgagacc gctttgcgct tttgtttgta ctgcgagata aaaatcccag 2220 agacgctgca ggcgatttga cagagtctca tatattatcc taaatcatta gtacttcgca 2280 agctgtgagg catgggtgta cttacgagtc aagtggtgat gggtccccgt tgaacctacc 2340 aagccgccag caaagcaagc ggtggaagta agctcggacc atggggctcc aatgactgaa 2400 gtaatggtag aacagtgttt catcaagtaa aaatccaaga caaagggccg ctttgcgttc 2460 ctcagaggcg atccaggtat tccagatgca gaaaagaaat gaaaatactc gaacttcggt 2520 aagtgagtta tggctttgca tcatctgacg acatgcttcg agccagaact tccagtcgaa 2580 caggtecatt tetattgate ttgaataeeg tgeaattatg ggaatggeet eetegaegaa 2640 atcgcacagt aggaagcacg cattgtgatc gaagagagac gtccgctggg ccgttatctt 2700 cataatcatg cagaatgact ctgcgtagaa taaacgtgca tgatttggct caagcgacga 2760 ttcggaaaga taatctcgaa gtagtataat caaacgattt tcggccatgg accgatgact 2820 gttagcggtc cccaagggaa gggctgatgc cgacccctct gcaccctcaa tgaaatcgtc 2880 aaaagtgata gccgcggtgg tatggggatt ttctggcgct tgattctgtg attgcttgta 2940 gagggtgtcc tccagtacga taagaatttg agcgtgtatt ggaagcaagc cgggtgacag 3000 aatgcgggcg ctcttctcga aataagacgg aatggcatcg gcgtacagca gatggatgta 3060 tttgacgaaa acgtaaaaga gatccgtgtc tctgccacac caccgggtta cccagggact 3120 ctgccactga atctgagtta tatttaatgg tacctcgggc ttctgacgca gataccgcac 3180 caaggccgtg tgcgtgtgaa acgacaaaga ccgcagacct ggagggaagt tcagcgcaag 3240 ttcttgggtc atcgcacgga gaccggagct cttgtcaacc tgagtctcag cgtataccct 3300 ccgacagata tttgctggta tattccagag tctgacaagc atttccgcca cgccggggca 3360 aaagaagaat gcataagcac atgctttacc gcagaaagcc accaaactag caggggcgtg 3420 cctcattgac atcctctcca ccacaaacgc catctgggtc aacagattat tcgtgaaaat 3480

atttctgatg ttgtgatgaa tagactctac aaggaagtct gaaccagaag acgcttcgga 3540
tgtttctgag atggacgctc ctgagggctt tagtggttta gggagctgtg catctgggga 3600
ggacatcggg aacgggactt tccattcggg tcgagacatt atgccgacta ccgcttccag 3660
atataccggc ctgtctgtac cagagatggc ttgattattc tttccgttta gcatgtctag 3720
taacccggtc caccatttat taagaatgtt gacccgtcga tccagatctt cgggcctcag 3780
cgctttgata taatgtggcg gatgagcgcg attcagaaag ggtagaagcg aagagcgaat 3840
gacattcgct ttcaatgctg tagatttgga ctgaaatctg gcgggacatt agcaagcaaa 3900
aagtaaaagc atactagcta catacttctg gaagtcggct tcaagaccac ggaaagcatt 3960
ccaaagttcg tccttcttc ttggagggtc cagattcca gggacatcc cagaaacggc 4020
ggc

<210> 858 <211> 6177 <212> DNA

<213> Aspergillus nidulans

<400> 858

cagcattcta cttgatgggt tcctcccatt cccctatctg aacctgtcaa acctgcagac 60 catctcttac gacaatcacg cgcgcgaccc attatatcac aactaggaag acgagaggga ttggatgatt ccggcctgga cgtgctttat tacgcgcccg gatccccagc gcgggcatgg 180 gttccaccac tgccagaact gtgatacgcg ccctaagtct taggctatgc tacccggctt 240 tcgtgaggaa caaagtgata tgaacaatga agggcgggtc ttaattgaca caagaccagc 300 agaagaaatt attggtgaat ggattgcgcg cctgcactct atggagtggc taccttcgct 360 gacaatcgcg gaccgcaaga taggacggcc agagagggag aggatttaga cggtgctatt 420 gcaacggcac ggactatgca ggattagtgg aaagtgacat caatccggca ccgaagacag 480 gcccacaata agtactgggc acagcgtgct atttatgctg catgggtcgc ctggtcagtt 540 gcagteggag gagetegega tgegtaagag tgaatgaget gagaetetee ageggttgea 600 ttcgcgttgg tggcaagaty gaggtgacga gctggaggag tattaccggg gccttgctgg 660 agategtget etttgaettt agteeegggg ttttegtaea tgettttaeg gettettgat catacaagtc atccacaaac gatcctatat ctacgcactg aaatacagta aacatatttt

tggccatgga tttgccgctt gtcacattca actcgaagaa ctgcttaaag gcgattccct 840 gcgccgagta gattaaccag cacgagtccc tagcacgaat gagagtcatg gatgagtata 900 tacaccacca acatactcta taggcaacgc tctagccaaa gggtctagga taagctcaaa 960 aataaaacga caagaaaaga aaaaaaagca ggtatgaggg acgagcatct gtatcgctag 1020 ccaccggatg cgtgtgatcc aatatgctaa ccaacccggc tcgaataacc tgacctaact 1080 ccaaacctcg ccccacagaa cagtctacaa tataggagaa tacatagagt agtctatggt 1140 gggggagagg ggggaaggaa gaactagaga aataagaaaa gaaatctatg gtaaaggtaa 1200 acacactcat accggaacaa catgcgcagg cctaatctca aacctctttc ccccaatcgc 1260 gcccccaccg agcccccaac ccttctcgcc aactgggcca tgccctgaac cttcactatc 1320 ttcagatccc gtagtgagat aaaagctatc ccccacagc cccctcttct tggactcctc 1380 gcgatccctc tcctctacgc tctgaaaatg cggcagcccc caccccatcc caaccccggc 1440 accagggaat ttgctcctcg agaaccggtt gtacatgagt attgaatgct gcttggtatt 1500 taccgtgctg tttggaggga ggtgtgcatt gcggctgagc gggcgcactt cggctgggcc 1560 tagtgggtcg atttggtgcg gaacattcag gattttgtac gcgatgctga gaactgggat 1620 ggaaagacca tggattacta tggaaaagag tacgaggaag taaattgctg agtcacgagg 1680 tcaatggtca gtaccttttg acagtgggtt ctgggagagg caggcatact tggtttcaga 1740 gcgcgaatga gagtcgtttc tactgcgctg ccctctccat cctcgggaaa taagtggctc 1800 gcgtgctcag cgtagaagat gccgccaatt cctatataat accgtaccat atccagtcag 1860 ttatcctact gtatttccag gatagcaaga agtgaaaaga atctccgctc accaatcggc 1920 ccgaaatacc ccataaacag cgcctccttc cagctcgtac agaccttggg catcaacttc 1980 cacaggacaa gcaagctggg tatgcgccga aacaaaagaa ccatgaaacc cagcagaatg 2040 agccgcggat acgtaattcc cgttgtctct ggctggtgga agtccgccca tgggatgacg 2100 gcaccaatgt acataaaccc agcgaaattg aggagcacgt cgatgctggg attgacttcg 2160. tegtggegeg etteegttte ggacagatag geteegteee agtteagtge tgtgeeaget 2220 gagaagcatg ccaggaggtc gtttgttccg attacgccgc aggttccgat ggtaaacaac 2280 tgggatataa tgagtggcgg ggggttaaga gagggtatgt ggttaacgta cacctaatgc 2340 ggcggggaat aacaggtaac tctccccatc tacccatttt cttgtggaag gacatattat 2400

gttagcattt gctttagctt aatcgcgggc tcggcctcct tgagacctta aggtagaaac 2460 caacctcctt aacgcaaacc tcaatgcatg cataccggca tagccaacaa cagcaccata 2520 caccgcgccc ataaccacat agtagcacca cgtctccacc acccacattt ccatcgcctt 2580 ggtcagccct ccatcctggt gacctacctg gcccgcccgg gtatacagag agatagaacg 2640 gtgctcaatc tcgtcctgat cgggattatg ggcaggatcc ccctgcgtat accgcagtaa 2700 ataagttgcg agcatcaaaa acggaaagcc aaacccatca tttgcgccag cttccgagga 2760 tatgatttca cgcagatcac gggcgacgta gcgatctgca aacggacctt ttgcgatggc 2820 ctgcgagagg atgggatcgg tggatgtgac gcacgaccct aggaccaggg cgcttagctg 2880 gccctgtacg tcagccggag actggaccca tcggtttgtt tggaactgaa aggagaccca 2940 caagattcaa gcgtggaatc gccagcagaa tacacgccga cgtgcagagc cacatcaagg 3000 ccatattegg cataaggeag ateageatet cettecacet gtggatetgg taettggetg 3060 ggagctggaa tcccacaatc accaactgaa caccgatcac tacgcggcag agaccctgtt 3120 tgttcatgaa ttattagcag agtaccaaca tcaatgagca ggccatagtt ttgcaaagtt 3180 gccccgcata ccaaggtaat tgcgtcttgc tgaccccata ctgcagaacc ccattctgat 3240 gcgtccaaga aacgagcagc gtatggcccg agaacaattc ctattagcag agctggcact 3300 gtcgcgcccg agttaggtgt gggactggaa tgggctgatg aagacctacg tgcttcgccg 3360 agataccagt ggttctttat cttcacagag gctagtgcat agaggataat aaacgcccct 3420 gcccatatgt attagctaac ctgtatcgtc tgaaatgaat ggattattcg ttgacctaaa 3480 actgaaatca ccacattcaa ctcactcaca accaacgttg gcatgacaag cactatcagt 3540 ctcgcaagtg aaggcaactg taaaatggat attcgctcaa gtacatgaac acaaggcata 3600 taatatgggc ggaagtcacg caaatttatg agaaccagat ttcccaacat attcgctgtc 3660 aggggcactg tettteeteg tggegttgte accaeagtga gagegggatg tettggegaa 3720 tctccgccaa gcagccaagt ccagaggcag cggccaagaa gcccatgtgc cgtcagttct 3780 gtagcatgac tttgcgcgtg tggccgtcat acgacgattt taatgacttg agtaccagtg 3840 ggtaccetga tttcetgace tgtgcagtac aaggagaact geeegtaceg gtegaggaat 3900 ctagtgccca atgtctttcg gacaagaagg tatcatccgg tatacgcagg atttggagtg 3960 attcaggact ccgtgcgtca taccccctca catcagggca cccagcgatc ctgcacgggt 4020

tcgtcggatg tttttgttct acgagtttaa ggataagaag tgacgcacac agttcatgtt 4080 ccgatctcgt caactcactg aatagtataa aatcccatat aaatatagcc ataatatctt 4140 gctgagataa ttgaccctgc cggatatata taacaactgc cctttgtcta cgcccaatca 4200 cagttctaag cgcattccag acgtatccag cgcgtgtcaa tcaaactctg atttggccct 4260 gcctttcaca ataatccgtt acctagtgca tgctctcaac atgaaacgcc tcatctatga 4320 tattttette eccaettaet egeteaaatt eeetttttag etatatatae aetgatetet 4380 ccataattaa cgggcgtaat atgcactgaa ccgggctcaa aggagcggac ggagtcgtaa 4440 tagttctaca atgctatgta tgcgttgatt atactcgtac agagctaaga attgttaaag 4500 atgtacttcc taccaggaag gcctagaaat atctgcatta tcacattgct cttcgtgtct 4560 tgggaaaata gagcttgtag aattaatatc atcaacctcc caaataatcg caaagagcgc 4620 gattgcttgg gctaactaac actagcctag aacctgctgg attctcatca agtcctagca 4680 acccacgact tttgcatagc ggcttaacaa gactagctga tggttctgct ataatagtat 4740 ttcttatggc ggggtgccta aggcttctgc tgacgcttgc tgttagaacc tggctagata 4800 tgtacgcctg gcttggcccg gggcagctat atatgcaaaa tagcctacat atttaattct 4860 ttctctccag atgtagaatg tagtattatg gttttgttat ttgtagtata ctagttaatt 4920 tacacccagt cctcaaccgg cgcaaggaaa tgccttggac aagctctcgg cggtgttcgc 4980 tagaagacag gaatacccca taaggtcctc tgcaaatatg aaaacagtac ttattgcact 5040 ctatgcataa gaatteteea aateaetgtg accaatatge etggeaagee atgeetgetg 5100 caatcccagg caggaacagt gtaagcggtc cagattctgc aagtatttag tacagcccca 5160 caacattttc ttcgaaagga caaggagctc agtcggggca tcattatatc atacattaga 5220 ggcgtctgtg ggctatacgg gccagtcatg tcgctgatga gtcgggacct catacaaatg 5280 acttgcatgt gcgtccgcaa tcgcacgcac aagatgcaag gaatgcagta cgctttgctc 5340 cttccctacc tgtctaaagc agtgtttcac tgcttccgtt atacggattg tgtatatcgc 5400 cccatgcttc agccgtacaa atgtatcact gcttttgacc atttcttggc acacgagctt 5460 gcaacacagt tetecacate tetgeeteea teaggegaea agaatattgg ggeeggeete 5520 gcttgatttt tctttttgct aagaatgtag gagtaacagg aggcaaaaga ccacgcctcc 5580 ccaagatgct tctcaagcaa gcattaaatt gaaaaaaaaa caaaaaacat aagaccaaaa 5640

taaaaactcg aaagaaaaaa aacccagata aaacctttcc ggttgtattt atgtatttta 5700
ccaaacccgt tgagtcgcgg ttgcttgaga cggcgtttac tttctaacta aatttatcgg 5760
cttataagtt attcaagctt ggcttttta ctaacccagg gacctccgga agctttcccg 5820
tccttaagaa aggcgggttc tttccaaata ttgggggccc taatggcccc gccatgcccg 5880
acctataggt gttggtaacc taaaggcccc ctttttaatt caaggatttg gttgtcgttt 5940
aagtttctta aaaaccccct gggtaaatgg ccccccccag tcccttttt gccaactgca 6000
aattttggcc aaaaaaccct aggcttagaa agtaaagttt taaaccctaa acgagttgcg 6060
gtccaaaatg cgcccaacct tgtggtggt acccccctg gcaagcgatt ccggacattt 6120
attattctc cctatatggg aaacccctt ttttgttaaa actcgctact ttatttt 6177

- <210> 859 <211> 3700
- <212> DNA
- <213> Aspergillus nidulans

<400> 859

gattcggatc tccgctctat gttcaaatca gcggtgagca gattacccga aactacgtaa gttcaacccg ctctgaatac ctgttcagtc acgtactgac cctgagatca gatttctgag gaattggttc aaaatcgagt tcttgccgct cgtcaatcaa gtgaaaccta tccttttgat cccgtcaagt tcatccctcg gtacctggcc gagtaccagc tctcatgggg tatccgtggc gacaacaacc cggaatatgc caagtacctg ggttacctgt tggccaagga tctgtaccct 300 gaattccagc ccatagactt caaagactat cttatcgaag tcttccaggg aacagcgaaa 360 ggaatctaca cagaccgcac catctccaag gcacaacagc gcatgttccc acgaagcgag tegacegatt egitgeaggg tegattette eegagaaeeg aateeagega etetettat 480 atgtcacgat agacgcacat ccgtcgcaaa tgcaggaaca tttcacgaat attacgaggc 540 gtgccagcag gtctcagtac tttgtttttc agcatagaac aatttcctta ccaaggtttc 600 ttggtacttg cttttcattt ggctatccgt ctctagattg cggcgtttgg acatcacacg 660 aggictatig tatcagagat cittitatata ccigiggiat igcitcatit citiggicat 720 agatatatgc aatagggatc agacaaatcc cctttcactt attcgttggt ctttcatctc 780 atgaattaca ttaccgtata tgcctcataa tgtcctcgaa cgtgagccat gaccctggac 840

aggcacgggg tgtacaggat ttcctaaaaa ggaaggtgct tgttatggtc tgggggcccc 900 aacgctcaac actttcaggc ctcttatctt ccctacgaac ttaaaatgtc actgttactt 960 taccatcata gaactcttag ccagatatgc cgcgagtgga agcgtcaagc gatccgtcgg 1020 acttgcgtga tgcggacacc ccagagtcgg cctccacacg aagccagcac tcattccagc 1080 tcaatcccga tgctggactg aagccgtatc aaatcaccct cataagtctg attccaacac 1140 gggaaagctg gacaaagcat taatccatta tagccatcgg ttcggcgata aattctggct 1200 tgttgatagg actgggggat gctctctcac ggtcagtctt ctggttatgc aaagatactt 1260 tcctgaccta gacctcttag atcaggagta atactgtcgc ccaagctaca attcaaagtg 1320 ctaattccag cagccagcct cgatcctgat ctcctatacc tttgtcggtt tcatagtctt 1380 cctcgtcctc tccgcactag gagaagtggc ttccttctca cgagagccaa tcaccctaca 1440 tactcaagca aaacgattct gcggtccgtc gttgggcttc acactgggat ggatgtaagt 1500 cgcttcaatt tggccttgac ggcctggagc tcacctgggg cagatactgg ctcaagtata 1560 tgatggtcat tatcaaccaa atcactgcag gtgtcttggt actgtccttt tggactaatc 1620 tcgggattgg gcagaaggcg gcgtatatta cggtttttct tgctgtgatc cttagcatga 1680 attactggag tggccgcttc ctcggtcgct atgaagtcct tctctcgtcc tttaagattc 1740 tggtagtttt gggtcttatg atgctgtcac ttgttatcgc actcggaggt ggtccgaacc 1800 ataaaaaggg ctttcattac tggagaatgc ctggtgcgtt tgccaacgag gaggatagat 1860 ccgcgttagg agtgtttcgt gccattttca gaacgttccc tccaaccacg ctatcttacc 1920 tgggaaccga acttatagga atggccgtac tgcacacgca agattccaaa aaggctgcag 1980 ctcgagcaat tcagcagaca ttctatcgca tcttggcctt taaccttgtc gttgtcacgt 2040 tgttgggaat ggcgatccct tacgacgaag acatactaga gttgtctatc tacacctcca 2100 agegeagage tatggetttt gttgtggetg tteaggtgge ceatgttaet gtgetaeegg 2160 atateetgaa tgettgtate ettatatttg tggtgtegte ggeaageagg geeetttgta 2220 tggctaccag gattattcgc gagctctccc ttgaggaaaa tgcacctcat ttccttcgtc 2280 gcgtcaacaa acgaggagtg cccgtctacg ctctaggagt aagtttcgcc ccggttttgt 2340 cgggattttt gaatctcttc agtacttccg ggcgcctctg gacttatctt gtgaaccttg 2400 tgaccatgtt tagcatactg acatgggtat cgattctcgt cgttcatata tcatttgtac 2460

attttcggag agtcaatcaa atacctcctg aaggtgtccc attcaaagcc cccttgggta 2520 tettagggte etgggtegee ettgtgettt gtatateeat acceateatg egageaateg 2580 aactgtctga tcataatttc tacagccaag gtctggatgt tggggctttc gtcacatcgt 2640 teeteggaat teeeetatat ettggtetag tggteggtta taaggetgta tacaaaegea 2700 agaggcaccg tgctcgcatg aaggcagagg cctccaccac aagagtgagg agcttggaca 2760 ctgagacaga tggtgcaggg ctaagccaaa cgatttcaag ggaaaaggcg ctatggagga 2820 gtcgaatcat tccggtatgg ttgatatgag gcgacgtcac tggcactctg atggcgatcg 2880 tgctcgtaac cctgcaggtc tagcctcatc aatatgccca agtatcgaat accggctacg 2940 🖰 tatggaacga ggcaacgcgc gatccaacaa ctcatgcaat attgacggcc atacagtaat 3000 gtgggcgtgg gatcctggaa aacagcacac cgatacgaaa cattccatga aggcgtcaat 3060 actcacagee tgtatageat gaatatataa etatgtegag gaateagaga ggagetatea 3120 tagggaaagc cttagcgaca aatgcacaat gcggtcttat agagcgcgcc cactcacact 3180 gcttcatgtt ccccctgtga atattaaatg ttggcttgca cagttttaaa gaccttgtac 3240 tgatttttct aagegggeee ceteetttet eeaaaatega ateecaaage gaetateatg 3300 atgcgcagct cataactacg acgttgaaac tgtctctaca gtcatccgct gaagctccta 3360 gaagcaaacc aactccatgg tgatcatgtc tatcgttgac cgaaaacctc tccaaactag 3420 acaagcatee taacgcagca geeecegeet atteegeeat etatateega eetgtgtgat 3480 tettagteaa gggaaaagaa accaagggat aaatggteaa cagtaaaaca actatgtaca 3540 cctccatgag aaggcctcaa caccaatcct ccctcgacct tcctagcccc cgcgtctact 3600 cctccagcag cgtcagcaag tctaaccagt ataataaccg taatttctgc gaagaataaa 3660 gccagcttga gttttcgaca atcgcgaata ctgtggcgct 3700

atgtgtcgcg atcatccgta cagccctcca gtcgaccgtg gcccccgcct agccgggtcc 60 catcacggac acacagtcgc agcgccggtg ggtgttacat acccccggtc ccagaggtag 120

<210> 860

<211> 2390

<212> DNA

<213> Aspergillus nidulans

<400> 860

gaaaccacct gtccgccata aacgccacct ccaaacgagc agaggtgccg gaggagtcaa ttgtgatctc tgagaaaggg gagaggtcaa tttggatgcc ggtgaaggca ttgagggagg acgcgccgcc gtgggcgcgg tcgcgtgcga gaaaggggac attattttca ttgcagtatg 300 atacctatgc actatcaatt atattacgaa tcaaggagga gaaagagacg cacgattgta 360 gagacatccg cctcctcgcc cggctggatg acaagctgga tgtgcggcgt ggcaacagta 420 ttccaaggct tcgtcgcgtt cacgtatcgg gcatcgtcta caccgaaaat aatagatctc 480 ggtgagagga tgctgttgag ttcgcgctgg atttcggcga cgctcaactg ttggtgttgc 540 cgggggaaga ggtcgggatt gtcagcggct gacctggcca cagcctgtgg gccaactagg 600 gtgaggctgt atgccaggaa caggaagcct ctcacctgca tcttgctgct tggttgatct tattagatca agcagagggg caattgatgc acgatcatga cctctgctgc cgaacgctgc tatatatctc ccatatctct acgatgtact ctcgggtttc tcaccggcat cggcatgcta 780 tatcgatacc tgattttgcg gattacagaa aacagtagtc cgtgagctat agaagatgca 840 gcctcagtgg atattaggaa aatcaagatt cgtcgcgtgg agggagggtc ttttgctctg 900 tcagctgatg tcagaactag tgaattaggg ctacgtacgg gcctctaaga aggaaccaga 960 tacgtggcga aggitcaaca agcctgcctg acaatcaatt ggtcttggct gctctttctc 1020 ggtgatatgc aagtagcagt gcatgcaggt ctgctgggca gggtaccgtg cttcactacg 1080 tacatgctaa gaggtacgta ccctaatcaa cccatgctag cgcaaaatgg gagtatgaca 1140 tttcacatcc aaatacactg ggcttgctct gttaatcgat ctatctcgtg ctatattgtt 1200 cccaccgaag aaaaaccacg gcaagcactg gaccggatgc ggagtatgta cctgtcccaa 1260 aactagtagc cgatgcaata ttgcttctgc aaaagcaaat cccgccgtga atctctcaac 1320 tacagaaaat atatactccg tcccggaagc ccaaagattc gagcagccga gctgatcggt 1380 aatagagttg gaccatgcct gcaattgcgg tgtgcgaagc atatgctgtg tacggtaagg 1440 ataaacccta actgatgtgt atttcgttca ttgccccagc ctcaagacat tgccattgcc 1500 ggtcaagtcg acaaatcagt ctgcagccaa ggagtggcac ttccttcttt tctgcttcct 1560 ctcttttttc cttcttcatt ctctcttctt tccccctttt gcatcacagt atgttttat 1620 atgtgataag tgcaatcaaa cggagtcggt acggagcctt tccgcccgcg caggactaaa 1680 ttgtaaggtc gatcttgact agtatacggt agcccttacc gactggaata tatggcgacg 1740

atacgataga ataggaatac gagggctaat ctcggcccac gggctccaga ttcagggcta 1800 caacaaggga gaagaccagg tgactacaat acacctggac tgcagtagta agtaggacct 1860 gcagctggcg gcttgcaagc gcggcctgcc ggaggaaggg ctcaaagatt cataccgttt 1920 gatttcaagt tcaaccatca gtggatataa cgacgcgtgc aatggacatt aactcatgat 1980 acgatgccac ccagccagcc tgggagaaag aaacccctaa actccgtgat cacatggaaa 2040 cccgatcatc ccagtccatt agtcatgaaa tcccgagtaa acctccgtag tcgtgcaaac 2100 attagctgtt ttaacgctcg tcaatctttg cgctcccttt agcttccatt tttttcatcg 2160 tcgctttcat cttcctcacc cgtaatctct ccccaccccg agctgcgacg gctgattcgt 2220 cctgactggg taggttgtg cccgacacca gaaatgctgg cagcattact gtcctgacgc 2280 gcatgcgagt gtgctccgct tcggatactt gctccatcg cggtcgccgt gctttgcttg 2340 gcgtaaagac tgccgcgttc gccgctgggt gttacaccag atgacgagta 2390

<210> 861 <211> 2105 <212> DNA

<213> Aspergillus nidulans

<400> 861

tategeacge gegaacatat tetggateee atgtaegace tatgegagta ttgaacaage ttgcgtgaat atagcccaac ttgttggaat gcagggatta aagccagggg aagcaaaaga ccggatcaag tcttatctta cccagggagg tcccggcaaa tggctcttaa tattcgataa 180 tgcggatgat ttggatatgt gggttggagg tagcacttgt gctgcaggcc tagcggacct 240 catacctcag cgcgagcgag gccgtattct ttttaatact cgcaatcgaa agctggcagt 300 gaagctggcc tcttcttttg tcattggggt cttagaacct gatacacaga cgggcctgaa aattetggaa aaggeactga teagaaagga tettgttgae gaaagagaeg aageeatege 420 tetectegaa cagetgatgt ttetteetet ggeaateate caagetgegg catatattaa 480 ctccaatgac attggattgt ctaactccat caccetttge aggaacagga gecagatgta atagatttac tcggtgaaga ctttggagat gatgcgcggt atcaggagat ccgaaaccca 600 gttgctacca cctggttgat ctctttccag aagattcagg aatcaaatcc actggcagct 660 gagtacctgt cgttcatggc atgcttgaac ccacgtgaga ttcctcagtc cttgattccc

cctgccaaat caagaaaaga caagctcgaa gcaatcagcc ttcttaaagg gtttgcattt 780 gtcagtgagc aggttcaaga ccatqctctc agtctccatc gcttggttac gcctgtctgc 840 tcggaactgg ttgaggcagc atcggcaatt tcaccaacaa ataaaaaaaa cggcagatca 900 ccttgatcga gtatttcctg acaacgacta cgcccaccaa aagatttgga gggattacta 960° accccatgcg atttcgcttc tagacgaaaa ggagttcaac gaaggactgg tgaaatatgc 1020 gtacctagtt caaaaagttg gaagatgtgt cggtgcagag ggcgatataa acgatataag 1080 gaagcggctg ccataaccga gagtctttta agcaagcaaa gagcaggaga agaagaagta 1140 aatgatgcaa atacctcaac tctaatcagt ctaagcgact tggcaattac ataccagcgg 1260 cagggacgat ggaaggaagc agaagagcta aatgtgcagg tetttgaget eegcaagaag 1320 tttcttggct cagagcatcc tgacacactg gttagcatgg ccatctgtca tcaacgtacg 1380 ggtggcagtg acgatggaag gaggcagaag agctagaagt gcaggttett gagateegca 1440 aacagatget tggeecagag cateetgata etetggeaag catggeeaat etageatgea 1500 cgtatgggag ccagggacaa tggctagaag cagaagagct gcaagtgcgg gtccttaaga 1560 tgcgtaagca ggtgctttgt ccgcagcatc ctgacactct gcaaagcatg aacaacctag 1620 cgcatacctg gcactccgaa agaaaagtcc acgatgccct agctttgatg gaacgttgcg 1680 tagaactteg aateegagtg etgggetatt eteateeege tteegaatee tegtetttet 1740 atctcagaga ttgaagagaa gaggttactg actgacgagt gccctcggga ccccagtcaa 1800 gcagaaagtg ttcagcatgc tcagttatta ggaaatggaa ttctccagca gtgttgaccg 1860 gacetectga tgagaatgga aaatataace eetetegeea gactegegea etgteageaa 1920 acccaataca acagtteetg gategeegte etettttgae ttteaggaac agtteteeag 1980 aactgagagt ttctgcagag tgagctccat gggctatatt tttactgctt cagtgttgca 2040 atgagcaagg ctcgttcgat gtatgaagca tgattgttgt tttcgaaagc tacgctaatg 2100 2105 atatc

<210> 862

<211> 3647

<212> DNA

<213> Aspergillus nidulans

60 attgtgactt gtttcgttac gtatgtcgac acttgacaat gcacaatcga gtaccaggct aatttcatca cagcgctgtc ttcgtgcagg gacgcaacaa gtttaacgga aacgaccaga 180 gtgcccgcct aggtgtaaag gcgttcgcgt tcctgtggac ctcggtcgct tgctggatgc 240 tggcatgcct catgtattgc atgggcggaa ctgttggtcg aaaggatcgc ggatatagtg gccgtaagca acgccgccgt ggtttcttta ccgcgcggca acccagccag gagcgcaaca 360 aggaaatcgc teectaaact getgetgteg getatacaeg getegeegge tacetagteg 420 ccttctattc gcatgctata cactcaagag tatgctgtaa tatgtaaatg ccgagcaatt 480 ctcctggccg gaaaaagtct tttcagacta ttctgaacct ttcggtcgac atacatttca 540 600 acaaagtatc gcaacgaact cgccacgtcg aaacacgacc gacatacact ctcgctgcat gcaatagtgc ttttcagcgc tttcgctctc tactagtgct atcttagaat ttgctgagct 660 aaccgtaacc gtgaactctc gattcgtgag tcatattgga tattcatggt gtcacgcact 720 tacgactatc tactactagt taccctaatt ttgctaatgg aatatctgta acatagtttg 780 ctagtacttg attgcctaca agttttcatc ttacgtattt agaacgtcat taggagggtc 840 gagtggagga cccaatattt gtacgcgtag gctatatcaa agccatctaa ttgttatgcg 900 aagagcgtgc ccatctatca agcgttctat tgtggttgga cactatatac ttttggaaag tettegttga tatacteate categteaaa agagteattt tegtegacag tteaatatee 1020 tgaagacctc gcgcaatcat gaacgtaagg aactgctggc gtatataggc tcttcagagt 1080 aatcaaacta ttcgaaaagg atcattaaga ttctaagtaa aagaaaagta acattcacgt 1140 tcatggcgac tcaacagcgc cccggacggc gctttggccg ccaacttctc gagctgtgat 1200 ctgcagaccg aggtcggcgt taatgtggat catcagctca actttaccct tggccttaac 1260 gcccttgacg gcgagctcag caatgggctg ctcggttttc cacacaatct cgcggatgtc 1320 ttettettet teateggagt egaagtegga gtegtettea tegteetegg etttggaett 1380 ctcctccttg ggcttgggct cgggcttagt aaccttgatc tcacgggaac cttcgcagac 1440 acggatgagg acgtcgccgc cctcggcggg aacactgtac tgggccacac ggcgggcggg 1500 aagggcggtc tctgtgttaa ggagaggcag aaactcgaca gcatcaccgg aagtgaactc 1560

gacaccaatt gccttgctga ggtgaggtgt ggcagtcacc ataggatgga tggactgctc 1620 gatatcttcg gtttcaaact cctggatcag agaagcctga atggcagcac cgcgggctga 1680 cageteagat gggttgatgg eggaegeeag agtggaeggg geeaaaatte gggtettete 1740 ggggaacaga ttgcgagcaa gctgggcgat cttaggagtg tgggaaacac caccggagaa 1800 gataacctcg tcaatgtcca gaacatcgag ttcagccttc ttgataacct gctcgatcag 1860 gccggtgaac tgagcgaaaa ccttgctaga caggagttcg taacgagtgc gattgatggt 1920 agaaccatag tcaattccgt ctgtaagaga ctcaatgctc aaggtggcat tggtacccag 1980 gctcagggcc ttccttgtag cttcaccttc catcttcagc ttggccagtc cacgagcgtt 2040 ctcacggggg tcggtcttgt gcttcttgat gaattccttg gcaaagtggt caatgatgat 2100 ctggtccagg gtagagcctc ccaattcgta gtcgtgagca gtggcaagga tggtgtacat 2160 tccaccacgg caagcaatga cggcaacatc agatcgggtg ccaccgaggt cggcgacgac 2220 gatgagetta teagtgacaa cageetetgg eegagegteg taggeaagag eageggeaac 2280 gggttcgtga atgagctgca gaatgtcaag accagcagcc ttggcggcag cggtcagggc 2340 ctcacgctga gcatcgttga agtcggtagg gacggtgaca acggctgcgt tgacctccct 2400 gccgaggaaa tcagaggcag attgcttcag acggagaaga tggcgggtgg tgatctcaga 2460 gacagtgaca gtgttgggtg tctcgctctc agtgtcacgg attgagaaag caacagtcga 2520 gtcgctctga atggggtggg cggagttatg gcatggggtg gggtctattg acttgaagct 2580 gcagtagtcc tttagcaggt gcattcgctt ccagttctag ttttgagtgc cgcaacttac 2640 teettgeeaa ggtagtetet gaagtatgea aeggtgtteg aggggttaeg gatgagetga 2700 gctttcgctt gggtaccgtg atattgctcg ccaccgatgt atgagaggat agaagggatc 2760 tgacggtcta gaatatggtg agccttagcc ttcctcaaga gcatgcggcg gagcggcagg 2820 tatttatgga aatagggcaa acgaacctcc ttcttcgttg gcaataactt cagccttgcc 2880 ttcctgtgag taaagtcatg tttagcgaac tccttcccaa ttgccaacta gaaagcacca 2940 ggactgcggg ctaacataca ggattgatac gggcaataga gctggaggaa ttgccaaaag 3000 aaataccgat agcaaatcgc tcaccggtgc cgttaatttc gtcgctcatc ttcagggata 3060 tggaggataa agggtgtaga aagaacagta tggaggagga agagagagtg gaggggaagg 3120 acaaggcgaa tcgtcaagcc aatcttcagg cggaaaaaaa gtttttgatt tggcggaact 3180

tggaaagcga gaatctgtgg ctggtgctta tcgataataa gtgtggcggt accaggaaca 3240 gatttcatgt accaccttgg tccgtcttaa ctactacagc aggtcgacgt atctatttga 3300 cacaatctgg aaggagtctg tagctcgctc aactgagata atcgattgtc tccagcttcg 3360 tgaacgctta agctcaacta accattgtca cgtgatatct gataagcagc tttcttcgct 3420 ttttcaaaga ccggcccttc tatatttctc cttctgtcgc ttgaattcca ttgcccacgt 3480 ctgattgcat gaatcactat gtcttcgcca ttaatactcc ttccgggcga tgaggtgctt 3540 cggaatatct acccaacaac tctgcaccgc tacgactagg acagggccta cgtcttctct 3600 cacaaccgcc aggaaccact ccttcgagtc atgtcctcac tgctaca 3647

- <210> 863 <211> 2200
- <212> DNA
- <213> Aspergillus nidulans

<400> 863

aatagaagag gggagggaaa cggagattga gggaaagaaa taggggacga agaataggaa 60. ggaggggcaa aagagagag ggaggtaaaa taaagtgggc gtaggaaaag ggtgacaagt 120 ggatgagtgg ataggcccct cggacaggtg gcgggtagat aacctagtca ggagccgaag 180 aggggggtcc cggaactcaa aatgtcaagt tcggtgcaaa agcgccaaga tcgtaggtag 240 cgggtaaacg caggatttac ggtatggtgg gacaaacggg agaagagagg gggggtcagg 300 attaagtctt ttctaggcgg gaggtatcgg agggagttca agcgtatgcc aagatttgcg 360 420 gagcaccatg gccaggcggt atctatgagc ggaaaagggg tatagtaacg ttgtcaagtg 480 tgagcttgga aaatgcgcgc aggagcagcg agcgggggcc gtacaagcaa taatccgctg actgtaggcc tgccaacggg gccattgtgg agcggtggag taccttgagg ggtcagggca 540 ctattggtaa cctccagggt gtaggtgggt atactgtgta gccatgctga gacagggtgc 600 aaagagaccg aaatgataca cgcgttcatt cagaagcagc aggcgagcag gctaaagccg 660 aacgggtgca tattaacccc atcggaccgg acgcgtcggg cagccaactt tataaatgaa 720 ggctggccaa acggcttaat ggcttactcg tcagttgggc agcggccgtg ggggaggttg 780 cagcccccag tgctcacatc atccccaaga tgcccgcgcc aatccacctc catgatttcg cgcctgctcc gtcattgact tgttcttgat cttaacgact acgagaccgt ccgtcgaaca

tgataccgtg cttctccggc ttcacaattt cacataagca tgatacttca caattgcaat 960 ctaccagcca aggacgcttc attcttacta agctttggtc ttctgctttc cttcatttta 1020 gtcaatggag ctaacaactc tcatcactat catcactaaa gacacatttt tctattagca 1080 atatatatgc gatacttaag cggcaacctc tttctaccgt tatgttgtat tcaggatcgt 1140 categitett tigetetegi aagitgatge teaagieaat teetitigget etetitett 1200 ccagcttccc tatctatcat ccaaagcatt cagaagaaat caggtaggtc ctccctaatc 1260 aattatcgtg aagcgattca ttctctctac agtacagtat agtaatttaa gatatcaatg 1320 tagcagtctt cgaaaacaaa aaagtcaacc ggaggtctag tcgggtaagc agttcgccag 1380 ttctgaagta catagagcat tagtcttata agttcacctt atactaccca taatgtatac 1440 ttgtaactat agcagacgga gtccgttccg atatcgcagc atggaattcg gcgttggtcg 1500 tcattttgac ggttcactgg gtctgacctt gtggcgaaag tcgaaggcaa caggatcagg 1560 acaatgagca tetetaettg agteagattt ttgaggtata egtggaaete aggtateece 1620 cgatgtatgt atgtgcaccg cgtatccgac ggtaagcaat aaaacaggag ttttataaga 1680 gcacataacg tagagcgtag aacagaacgc gggtagcaac acatgtgtcc ggatagcctg 1740 caaccgggaa ggcatgatgg attgcaataa tcaaacacta aagctgagtg gtgactcgaa 1800 gatggaagaa taagaggggg acgtagtcag gatgcgcatg catagacaga ccatatatga 1860 aaaaattgaa cgcatagaat aggcaacgcc atctcatcag acgcgatgga tcagaatgaa 1920 gcatcctacc gagtgaactg cggatgaaga gacataatga tggggcggga agagtatggg 1980 agactttcag caaatgaaga actaacacaa gtgacctgac aaccagtctt acgccaattg 2040 agaaacatca tgatagaaca tgcatggtcg agaggagacc gaagagcagc actcatagga 2100 gaatggaagt acgcgtgtag ttctaagtgg agaaataccg gtaagaaatg tgcgatgagg 2160 gtcgagacgt gagaggcacg ttatatgata gcggtaagag 2200

<210> 864 <211> 1126 <212> DNA

<213> Aspergillus nidulans

<400> 864

aagggaccgt gcaacaataa gagactcgga tggtcaacaa ataatgttag ccagccatat 60

cgacatacaa ttatgtattc attcactcgg tgagtggatt atgatgatac aaaaagtccg 120 tacctattat tatacatatt aggaatctag cctactctat gtactagaaa tagtcacatt tcaccttccc cacgtcgtgt gtacgagaaa agaatctttc aagccaatac catgaacctc agacctgctt atccaggtgg gtttaagacg atcttgtcta acgagcatat gaagaagttc tagggagact agctactgat ccacgccgta acgcgctgag cgccaaagcg acccataaac tgcagccctg tgctgcccat ggggaaatag ctgacaatgt accatagtag agcggcgagc 420 tgaaagatgg acgagaggag ggtgaggaag gtgttgtgaa gctgcgaaag gagatatcat 480 cageceette caetgeattt tgeaagteeg agaeegggtt ggetatgttt tgateatggg 540 600 actttgctgc ttttgtagat tgagaaggaa catatgggac atgggatggt gtggagggct gggctgggcg ggctggctgg ggcaagcctc acaagcccgt cagattgaga tcctcgcgaa 660 ggtttcccgg ctgcttccgg atgacaggct gcatcaggcg cataacgcga taagcaggat 720 gatgtcatga gttgggttgc gcgatactca tctcatctag agcttggaag ggcaatgccg 780 acatgagagg agaggggatg gtgcagtttg caagtcaagg attatttctt gacggcaacg 840 gcgtgtacat gcagaaatgt tgggcggccc ggtccacggc attcataaag agggagcaag 900 agacttaccc cgatagcaaa atacagagtc atggcgatgg acccgaaata tgcggccgta 960 aagggcagcc gtgatcccga gatcagatgt ctgacgtaga tcatgggtcc catgaggaca 1020 gcccatgata gcaagaaaag taaagatccc acggaccacc tatcggaccg gagttagtgg 1080 1126 tattaccagg aacgctgtaa cagggtaggg caatgtatgc ggcaca

<210> 865

<211> 2383

<212> DNA

<213> Aspergillus nidulans

<223> unsure at all n locations

<400> 865 .

tetaacgage teagetttea tgtgetgege cacaaagagt ttgateaaag tatgaagtae 60 gattgattga attteettet gaageacage taatgacate gtttattatt etgteegaeg 120 eccaaggget tteecatagg gtaggeeagg agteagggee acetgaeeag cateeteeat 180 taacegaeag teeteaatag ecaataegge aacatteaat etaettaeat atteaaeeag 240

atctgccggc agggttaaag ttccatacac gaaatcccag ttctttcagt tttctcccag 300 gagtctgccg tatcttcaag ggtgaacgaa ccacctgact caccctgctt gtcggagcat 360 gctgccctcc agtacctgcc cctagaagtc gaactcgttt atccatactt gaagccagat aggcggctgt acgggccacc caatgagacg aagattcatc acttctcaca ctgctatgaa 480 cgcaataaca aggtcatgac aaagtcagtc aaaaagcagc ggctgaacct aatggttcca 540 ccggcaaaat atctcccgga aaggagtgcc taattcttga ttgcttatct gcagctattt tggttatctg cacaaggttc aacttggatg ttaaggcctg tcatggcgac cgcggagtga 660 cacaaaagcc cagactgctg cactatcagc ggaatactag tagagtcgtc ggctgaacac tgctcccgca tatgcaaact ttctacaggc aggaatcaag cagaatcagg catctcttta cccactgtga caacacgctg gttctaaagc ctttacagct tccagttaaa gcacctggtc 840 ttagctgaga cggcaagcca ttcagaacat ctaaacgacc attctggtgc ttatattgga 900 aattctaagc atagagaaga gaataatgta catgaagaga tcgattgtgg gatgtcttcg . 960 cgatcaaagc ttaacttgat ttggtcggta gtcagagatg gcaaaagtca gctcattgca 1020 tacaccagtg tacgtaatga acctggccaa ttacgcaaat actggttcca ggcaccgtgt 1080 ccaggatgag ctctgtaatc tatgctggct catgatcatg gcatgtaggg ccgtgacata 1140 agcaacttgt atggtgtcgt aatttgtcta aagagcttac tgctctagag ctaatacttt 1200 aggacattgc ctgagcttct aattactaag gcttcttggt gtgcagatat atattaagac 1260 gccctatata acgattcagc tacagcccct tttaatatac tcaccgcttc attatttatc 1320 atcaatctcg agtccgctgt cagttacttg aaaacatttg cgagaaatac ctactggcag 1380 gtactgtttc ctctaggatc gttccataaa tgccgaccca atgtctgtaa tgctgcaaaa 1440 cgaaacgaac gtacaaattt tgtgagcgag gcaacggcaa cggaaaagtg aagacccaaa 1500 ctggttccaa caagtgtgga cactggtggg gaactgacaa tatgcaatac ccttaagaga 1560 cttgcaagtg ctcggttgat aaatggacct tttaaaaatt ttcgctggat aatatctgca 1620 aaagctagac ctccagtagt gtatactcct ttttccgcgt accggatggt gctcttcgtg 1680 ttgttatgat ggtttatcta ccctctacca tttcttagga gtcttttgat tctgtggcga 1740 tgaacactgg gagtatactc taagtcaagg tcgggttgca tccaatcaaa caattgtttg 1800 tatgatetta gaacaegtag cattgtteae agagacaata aatgetaate tttaettget 1860

- <210> 866 <211> 2643 <212> DNA
- <213> Aspergillus nidulans
- <400> 866

gagttggggt ggatcttgtg gataccaaaa cctgcgagag gtacgcagtg attctctcc 60 tgcaccacac ctattccacc ccctcttttg tgtcttgatt ctcgcggcct agccgggatt 120 ctgccgagcg acattccgca atcctatgct ttgcatgccg ctgaccggtt ctgattctt 180 agttgcaccg cgagagtgtc ctcgtcaagc ccgtcaacac cccgatcacg ccgctttgca gtaagtacac gctagcgaca gctctgcatt tagacttcac atagcttcct tttctttgtt 300 acaattatcc tcccattata tactggcttg ctattgcaat ggctgacagt gacgacaagc 360 gageetgaca aegetgaeet gggageaegt eegeteagea ggeagettee gegatgeeat 420 caaccggttt gacgccttcg cccaggaaca cctcttggat aggaagctgg aattcgcctt 480 tgtgaccttg gattcgtggg atcttcgggt tcagctgccc cgagaggctc gagataaagc 540 agttgtcctt cccgcgtacc ttcaacactc gcggacattt gaccttcgca ccgagtacca 600 gagatggcaa acccaccacc ccgaatctct tccctttggt cccagctctc tctccaacat 660 ctgtgctgcg ctcgaagtcg aacccgttca gtcctctgcc ccgatcaagc ataaccttcc 720 attccacctg caggetttgg egecegette ecceegtegg gecatggaeg aggetgttae 780 actggcccga gttctccggg ggctgattag gaagtctcag cccgctcatg agcatccgga 840

gattettaet eggecaatgg atgegagage ggatgttegt getttettgg eagagegtae 900 acaggtgctt catctgagtg gtctgcctca cgatactact cagtcagaat tggagagctg 960 gtttacccag tttggcggtc gcccgatcgc tttctggact cttcgtactc cggaccagca 1020 caaaccgacc ggtaccggat tcgccgtctt ttcatctcat gaagaggtaa gtccaaccgt 1080 gtctttactc ctctcgtctc acaaatctaa catgaaacag gctgcggaga gcctctgcat 1140 gaacggacgt gccctcaatg agaaagccat tgaggtttct ccatcatcta gccgtgttct 1200 tgaccgagca gcagagatte taaccccgtt ecceeegteg aagaacegee etegaeeegg 1260 agactggacc tgcccctctt gtgggttctc caactttcaa cgccgtacag cgtgcttccg 1320 atgetettte cetgegatag cegetaacee tgacecaatg gettaegggt aeggetatgg 1380 gcctccctcg atgatgccac cccacgttgg cggccatggt cacggaatgg gacactctcg 1440 tggcggtaat ggtggagtgg ttccattccg tgcgggtgat tggaagtgtg gttctgaggg 1500 ttgcggttac cataacttcg ccaagaacat caactgtttg cgctgcggcg cccctcgatc 1560 aggagetget gtegttgeeg acteggegtt teceteecea atggaceete egtegaaett 1620 eggecacage tecatgagea geaceceage acetggecea tttgetteca eeggegetge 1680 atttggcgga ttcaaccagc ctttcggagg gcatcctgct acctatggac tcccttccgg 1740 cettggaage geteetggeg egtateeace tatggggeag atgaceeeg gttatggtte 1800 aacaaactcc tctcatgctg ccgcctcttt cgccaacccg gcaacccagg cggctttcac 1860 tggagcagac cacacctcct ccactagcgc ctcgaacgga aacttctatg ggaacgatgg 1920 ctctaacgac cctttcgcct tcctgtcctc gggcttaggt gggttgactg tatcggatga 1980 tgcccattct cgccgaaatg gtgctggttc cagcaaatcg cctgcataaa ccatcgcttt 2040 ggcttgaatg aaggatgata ctttttgtct gcactttctt gtttatttgt caatatggag 2100 atgcggatat gtcggtgcac gtttattgat gcgtgtttgt ctacgggttc tgcagttctg 2160 gtgcatcggg ttgggaggag caggcaggta gcgtgtcttc attttgcctc ctttgtccct 2220 gtttttctta tcctttttc gtcagtcatc tgtgcgcact tattcgactg tatttcggta 2280 tgttcttggt cttatggttt gaaagcgatg ttccaaggta tagacgatgg tcccggcagg 2340 tgggtgctgg tggctatccc tcgattctcc ggtttggcgc gatcatcgct gttttggctc 2400 tttccgtcga catccgcttt acctatccat ctcaggcttg agcttccgca cggacccccg 2460 agatttttac tacataacgc gagccctgat gcggtcctct cgagcatgac attgcattct 2520
agatattggt tttgtttttg cttttccgaa ctcatctctg cgctcttcgg caacaggact 2580
ttttggagaa ttatggtatt gatcacggat gggatacatg gaacggactg ttgggggtgt 2640
tgg 2643

<210> 867 <211> 1954 <212> DNA

<213> Aspergillus nidulans

<400> 867

ggagagatgg aattgtaggt aagagaggga gaaatgtgag aggaataagt atgatagaga 60 gggatggatg tgagaatgaa atagatgaga gagggaaata gtagaagtgg tagggggtaa ccaggaaagc ctccccagga tgggttcttt tttaattagg caaatgctga gttattaagg 180 gggatatttc gtgcccccac ggacctccaa ggccggggcc ctatatctgc gaggggaccc 240 gattaaacgg gctcactatg aaggggggtt aaagtggact ggagattttt ccgtcacgcc 300 ttgtaattcg tgggcagaag ttcaggtggc aaaatccacg gtgccagctt attggaacgc 360 taccatgaat ttacgcgcgc tccgatattg caggttaggg tattagtaac cttcaggtaa 420 teatattget catacegeae tegtteteeg ettgeteggt catttegatt etgtetgggg 480 atgtggtatc gtcctgttca tcagtgatgc cccctggact gggaaaaacg gcctgaaaaa 540 gtatccccct gtcattcgga aggcgaacgg tttgaatgct ctggtgagct gccagctcgg 600 catgagccaa agccagagca catgggccgc gggttccagc ggtacgcgtc gtcgaaactg 660 gcgactgtaa tgtggatgta ctctttgaag cgccgcttga aggctgtatg cgcctttgtc ecceattata etategeeta atacetgetg acaeggeaaa ttgegttgea eaggaceatt cccttggcaa gatcactgcg gtggcagtca acccggggaa cccggcagac tcgcgcgcat 840 tacgggtgaa cgcgccatcc cttctgaccg ttttatcaat gcttgtgatc atagtcaaat 900 agagatteta cagggeeeat agggttaata tatacaaeea egtgeeagte etaaaeeaaa 960 gacagaaatc ttcttgttaa agtctctatt aaagcctcta ttcaagcctg aaaccctatt 1020 acaatcctat tatttaaact gctgtaaatg attgtgttat ccaagataga tagcataaac 1080 tgggagggtt tgctgctaag aggggaggat aattataata aaagaaacct aacctgtcag 1140

<210> 868 <211> 2295 <212> DNA

<213> Aspergillus nidulans

<400> 868

cacttcgcca agatgcagaa atccagtgac acttgggaag acatcgtcag gcatcatgcc 60
atgcagcgcc gacggcgcta cgaggccggc gaaaagctgg aggacttett gtccgccctg 120
atggaggata aagcgggaca ccctctaggc cttgaatggg gcgaggtctg cgccgaaatc 180
aacatcatga tgaacgccgg ctctgtgact accgccatcg ccatcaccaa cgtaatgtat 240
cagctcctcc gcaacccgca gtgcctcgcc accctccgcg aagaaatcga ttcggtctac 300
gattcggaag acgaggtggt ggcctcctac gataaggtca agcacctccc gtatctccgg 360
gcctgccttg acgaatctct ccgcattttc ccaccacgt cccacggcct cccgcgcgag 420
acaccccctg agggaatgga gatcctaggc cagtgggtgc cgggcaaaac atccgtcagc 480
atgtccgcgt acgtcgcca ccgggacgaa actgtctttc cagaagcata cctgtacaag 540

cctgagcggt ggttgggcga ggaaggcaag gcgctgcaac cgtatttcgt tgcgttcagc gcgggcgcga ggtcctgcat tgggaggaat atctcgtacc tagaacagac ggttatcctt 660 gcgacgctgg taaggaggta tgagtttgcg ttgccgagta aagactggga attgcagagg 720 gaggagacaa tgaatctgat cctgggaggg atgccggtga aagtttggcg gaggcaattg 780 gatggggatg cctagctgtc ttgccttctc tctccgtcag gggtttcttc gttagattag 840 actttagcac ttcgtttatg atgttttgat gagggatgat tagcgtttct aattgaaatc taacgcattt ttgttctgca ctttgtactg catattgttg ttttgtcaac tccctaggcc 960 atacaaagac aatctgcaat ttgagcgtct tgatgatagt gcgtaatctc tcatgaggta 1020 gtatgaagcc cttatgaatc cctcatggta gacctatgcc agtgaggcag gatctcactt 1080 gcacattgtc ccggctcaat atgtgtcaaa taggtatacc tcgcatcacc agcttcatag 1140 tcagcttaat ccatgaaaag agaggcaatg agccatgaac tacggttgta gtaacttaag 1200 gcaattgagt atgaggcgtg aggccctgaa tatccgtgtc agtagccgtc aaggcccctg 1260 gtgtttgatc ctccaagcct ccaacatccg acgtcacaga tcccacccag cacccatcga 1320 gaacaacatg acaagaacct ctggatccac tgcaagccaa tgagtccttg attctgggcg 1380 aacttagagg tatgcaagag ccgatctcgt ggcgaggact gcggactaaa tttcccttta 1440 cctccccgc atacctaccc ccgcattcta aaggggaaac attccccttc ttatacttca 1500 ctcgatccag tacgcagagt cgcagcagac ggtataaata tggctgtcaa acagccagat 1560 acacaatcga ctacatcgcc ctgaccttcc tttcactcgt cgcaggcaca tttctcaccc 1680 ggggcatect etgggaceag ecagacecet acagacatet tetttaegaa eggeeteage 1740 tcaaacacgg cattggtact accgcaaaca gtagacagca gacccggaac atcgcccgaa 1800 ggttggagga gacgaactcg cccattgtcg tcttctgggg ctctcagtca gggacggcag 1860 agtcctttgc acacagactt gccagggaaa tcaccctgcg gtttggacaa aacaccctta 1920 cagcagatet gagtgaetat gacceegett caattgegga gatteeetea tecaagetag 1980 cgatcttcat cctctcgacg tacggcgaag gagaccccgc cgataacacg gttgagttct 2040 ggaactgģct gaatagtaac gaccggaacg cggagaagaa gcagaagcag ttttccgggt 2100 tgcgatactt tgcttttggg ttgggaaact cgaactacaa gttctataac cgggttattg 2160

atcgcgttgt gaaggtgctt ggcgagcatg gcgcgaacgc actgcttcct gtatcaagag 2220
cgaacgatgc tactggctct actcaggaag acttcatatc atggaaagaa agactgtttg 2280
cattcttccg tggga 2295

<210> 869 <211> 4644 <212> DNA

<213> Aspergillus nidulans

<400> 869

60 ggatagcctc ggcaatgatc caggctagaa tccagaggca aagagcaatg acaacccacg agecgatgge gaeggegtee ggettgtgea tgeggtetgt geegeggaag atgeggatat 120 agatgtattt ggcggcaaca tggccgtaaa tgacacctgc aatgaggatc tgaaagttgt 180 240 tagtcttgat gtaatcggga catgtgggat gccgagggtc atacggtagg gagggcaatg 300 ccataggcaa ctttgctgac gattggactt gcggatccca gagcgggcga ggtaacgtct gcgccaccgt agcggtagat cacgacggcc gcgatgaggt agagagagat gtcaattcct tgaaggaggc agaggccctt ggggaagtcg cggggatctt tgagttcagc agcgagaccg 420 aaaaaagcag cgtgtccacc tttaggatca ttagctttct tccttttctt gaatggagga 480 tgttgagatc gtacaaaaag caaagacaat gttagtcacg gcagtgaagc cgtggtagag 540 gtccgtgtcg acgacagctg cagtattgtt tacccctggc ttgctgatac cgacgccaac 600 catgcagatc atgacggccg agaagatact gatgaacgct gtcccgacaa ggtcagtaag 660 gagataagat tgaaggaggc gatgcacata cagactagcg agagccagga catcttctcc 720 agagtgcgag gcaagcacag gatgaacgag acgatcatgc ccacaacgcc aaagacaatt gagcacgtgc cgtgctcagt gagggtattc atagcgacag tgaacgtcag caaatggctc gccatgacga agacgaagaa cagcatctgc gcaacgccca tgaactcgcg accccatttc cctgccacga cctcaccggc gtctgccatg ttcgtaacgt gcggaaaccg attcttgaac 960 tgtccaatga cgtaacccgt atatgtcgca aaaagaccca gcgcaacgag aataatgatg 1020 gctctgtaaa cagtctaatc agcgaacggt tcttgtgatc attttgtaat ccaataggag 1080 ttttgggact aatctgagac atacgggaca aaacccaaac ctgcaacagc ggcaggcagc 1140 gacagaacac caagggacac tgtttcggcc accataagca gaccgcattg cctatgaagt 1200

aaagtcaaaa tcgatcctct atctggtcaa ttagaaaatg ttaaagacgt tatcacgtac 1260 caccacttca aagtettgta tttgacttcg gcaaacteet categecaaa ggcatetgat 1320 gtgaacggcg attgcgtgta tggagggggc gagttctccg tcttcttcac gtcatctctg 1380 gtgaaagaat cctcgtcggt agtcacgttc ttctctgggc ctgattcttc gtgtccatat 1440 gggaccgacg actcagcgtt ttgagccatg ttgggacaac agcgtttgat gggaaaggat 1500 cggcaggcgt aaaggagtgt caatcgagga aggacgaata taggagaagg aacgatcgtt 1560 gtcgtccacc ggccggatat atgaagatgg agagaaaagg atgactgatg ccgatcgaag 1620 aagaaaaggc ccagatcgga gactaccgat gaagctcgac ggcgttgata ctgctctgag 1680 cagtggcaga tgaaaggtcg gtccgccacc ggggcatctg cggaccagat cgagtggttc 1740 tggtgggcca ccaccgcgaa tcgagagccg cgacgtaaga gaaactatga gaagctgggg 1800 aaattttett caaageetee gatgeegggg aeteetggea agteateage egtteattat 1860 taatttcaag actggatctc agaaaagatc agattcatct cagatatcgt cggaagttga 1920 tatettgttt etggaataga ggagetatea atetgegate ggeaacatga egttegeaga 1980 agtagaccgc attggtcgaa gacgaacaag ctcggaattt agattgtggc gtgcagcctt 2040 aagagagete caaggeetag aggeegeget ggaagtggee ggaateagge geetaactee 2100 ggctgccttc tggaatcctt cgcaaaggtc tccactattc ggtatggagc tgtgaaacag 2160 aacacgtact cgagtactgt gtagaattta tgaacattat tattagtcat gactagtcat 2220 agcctgggag cataaataat taagctatac tggccgcgtt atcgagtcca cttgagtcaa 2280 ttccaaaaag gaagtcggag cgagcggagg agtccgtttc tgtcaaggac agaaactgcg 2340 agatgcgggg ttcaaggatg aaggatgcag tcgttggaga cgcatcccac gccctgcacc 2400 ccgtggtcca atgtgacact gctgacagtt aaccgtgcca ctgtaacaag accatgcatc 2460 tacgcaagca tgggcctgag catcagcagt aaccacatac tgtctgttat ctcccacacg 2520 gcagatcatc ggctattgtt gtcgaggccc ttggctgctt acccctctta agatttctaa 2580 tttgagctcg acatgaaaca atgcagtagt gcaaaactac cgcagagcaa aacactgcag 2640 ctagaaatga taagagctgt cgtttcgtca ctgacgtgaa gggagatctc aactttcggt 2700 ttctgattgt tcgaagcagc tggccatgac tctagcggag cacgatgacc tgtccccgca 2760 ttcggaagga acgactacgc ccgacgagaa cgagcccaat tcaccggttg aagggacata 2820

caatgatgcc cgtgaagtgt atggcaagat agcgagcacg aacttttcaa tcttgtgcgg 2880 gggtttcaac ggtatctcgt tcttgattta tgatttatat tactcttgta cttagctgat 2940 cgatgacgat atagacgccg cccttggtcc tttaatccct tacattcagc cgtggttcca 3000 tgtcggtctg ctcgaaatct catacatcta cctcgtcagc ttcgccggca gtttcagcgc 3060 ctcattcgcg aatatccaca tctgttcgca tctaggaacg ggagggacgc tgcttcttgg 3120 cattgccata caatgcaccg ggtttacatt gatgttctgg gccccctcgt tcccgttctt 3180 cctagtggcg tttctcttca ctggattcgg atgcgggctc gccaatgccc aggcgaatag 3240 ctttactgtt acggtccgca actcgcatcg ttggttggga attcttcatg caatgtatgg 3300 gatgggcacg atactggccc ctctggttgc gaattcaatt gcagcacatc tatcaagatg 3360 gcagatttac tatctgatct cccttggcct tggtgcgaca aatgctgcgt ttgcagcttg 3420 ggcgttccgg catggtttgt tcaagccgaa cagtgaggga gccaaggagg ctgcgggacg 3480 ggagctgcgg gagacattgg cccatcggtc gctttggttt ctcaccatgt ttttcttcct 3540 atattccggg gctgagataa ccctcggcgg tgagctacct agtttaaagg gagccaagga 3600 tgcggctgac agttgataca ggatggctgg tgcaattttt agtcggggtg cgtcatggtg 3660 accetgaaaa ggttggetac gttgegteeg tettetggtg eggetteace tteggeegtg 3720 ttgcgctggc agacgtgaca catcggtttg gcgagcgacg catggtcttc atatacatcg 3780 ccgtggcgct cgcattccag ctcatgttct ggctcatccc aaacattctg attaatgcca 3840 tttcggtttg tttgttaggt aagegagege gggtggtega acaecaatge gtaacgagat 3900 atctgacctg tatataagga ttcttcatcg gcccgttcta cccagtggga ctctacgttc 3960 tcacgcaggt ggttccacag gagctccatc tcggggcgat aggtacgtga caaacatcca 4020 ccatcccaag tatcttcaaa ctatccagtc tgacccgcgc gatagggttt gccgcaagct 4080 ttggttcggt tggctgtgct gcattcccgt tcttgacagg agccatagcc tctcgagcgg 4140 gtgttgaagt gctgcagcca ataatgatag gtttactaat tggcatagca ttcttctggg 4200 ctgtggttcc gaagccaaag cgcatccggt tgacttgata atgataagaa agcgacttct 4260 gggacattag caaatttcga cttcgcactg gctgccacat acacttactt gcatacgagt 4320 ctggaccttc cgcacttgaa catcttgctg agaatagata aagggtgaga cctttttcaa 4380 tgacatagtt agcatatagc atgcaaagca tttgaggtat tttggataga aacagctatt 4440

<210> 870 <211> 4395 <212> DNA

<213> Aspergillus nidulans

<400> 870

ctaagtcggt ctaagtataa ctcggacagg cactaaaatg aatcgctagt atatacagtt 60 ggcccgtagc tttgttgaac taccgtaccg ccggcataac acccgtagtc atgtaccgta ggatctcgtt gatcggcacc agcggcaaag cgtgctcccc tgctgcagcg ccagcgttat 180 caggcgcacc atcaatcctc cctccaaacc caacatccat ctcttcgtct tcttcctcgc 240 totoatoato atoototaaa accotottoa accocaacto ogcaacaaco tgotgaatoo 300 ccctctcctt ctcctccaac gtgaaattcc ctccccagtt cctccttctt gcctctgagt 360 tegecteaae aggegeeeae teecaeageg eegegagate atettegetg ageetaeete 420 cagegeegge geecaccaeg ceegcattea teecagetge agaageegat ggeaacgttg 480 agaacatccc cgtcgaccct gaggatccct gaatagcgga attatccgcc ttccgccctc tgctcaccca atcctcgacc ctgggatcaa gtttcgtgcg cagaagctgt tcgagcgtat 600 tegeatgegt tttggteggg aatteeggeg etgggaggge agatataete egtagaaget 660 cgtggttctc agagaggtgc gtggagatgg attggagatt gttggagatg atgcttgctt 720 gcgtttgaag agaggacctt tgagcggtaa ttgttagtca attgctagaa aaggattgaa 780 agaagcaggg cttaaataga aaatacggac catgttggta aaggatcaga ttggtttagg 840 cttgtaatca aggagcccaa agagtgcgtt agttggatga ggcgctggcg ggattgttcg 900 agggttttaa ggtggtcagg ggagagggtc gtcattttct agtcgcttgg ttcccagtcc 960 tcactaatag gagtgacggt ataagtttga agtgtcgtag agggattaaa tagtgtctgg 1020 tttggctaga tcgtgacgag gaagagaagg ggagttgaaa acagccgcct ggaattgagg 1080 tetgaeaett geaeggegae eeaceaeatt egtaeetatg egataeatag tggeeeegat 1140

catcttctcg gtcacccgga atgccatgac atgtttacct gcaccatgat atatttagat 1200 aaaagtatet tggtageace tettggaagg tgaatataet aataatatte tettggeegt 1260 gagttggagg tgcagtagcc tgaaacacgc cggcgcgtag tccgcctagg cgccagtgct 1320 gtggaattta tagaaggact cacccgggg tttctcttgc tcgtctccag acaacatcaa 1380 tctctatcta ccattaaaaa gcgtacaact tgcttcatac gttccatatt aacaaattag 1440 tettetttea agggtateta ticaacatta aacagtigge ageaggeatg aetitigatat 1500 acgtcaaaaa gtgggatcag ggtacgctca agcacggtat aatgatgggg atggagatga 1560 ggatggggag ggacatatcc gggcccgaca cgccatagag ctatgcaatt ttaacaagaa 1620 aggcagttag aacctgactg ggacgggctt tgcactcaag agggagcaac aaggcacggt 1680 gacgacaggc cgcaattact cctgcctccc cttgccatta ttcggcggtg tctgctgaaa 1740 atacgtttgc tgctgatacg gctgcacttg tgcctgcggc accttctctt cgggcgaata 1800 cgccgtcgac ggggacgcaa taaccggttc cacgaccttt gagtaaccaa cctcctgaga 1860 gcgcccatct ttatcaataa agccgaagcc gaagcccgga gactgcgcat atccatgatg 1920 .cggttgtggt gagtacacag tgggcccgta cataccctgc gcctgcgcgg ggtactccat 1980 tgcccattgt ggggtgctaa ttccagtgtc gttccagcgc gcgtgaaggt gtgcaggctg 2040 gcgcaggcga cgggccttct tacgacggga gcggatgaag aagaaacacc ctagcgcgag 2100 gatacagagc aggatcacga agccaaggat tggcatggcg attatgaggg ctagattgga 2160 gttgtcgccg tcaccgtcgc cggagatgag gtctgccgag gaagaaggga ggagcgactc 2220 ggagaagatg cggctgggtg tgatggggaa ttcttcttca gtgggtgttt cgaaatggca 2280 gttgtaacgg agagattcga ggactgcatt ttgttggtga gttaaagatg tgggaatggg 2340 gacaaaggtg ccgacgtaca gttggccagg tatacctggg gcctcacttc atcggaggtc 2400 agattatagc acgcattaca atcggtgatc tcgttatcgg cgaacgaggc ggtatcgcac 2460 caggtctcga tattctcgcc agaggggctg tccagttggt attcgactga tgattcgatg 2520 tetttgeacg caactgggea agagttggag etgttggtea cetteteegg atacceataa 2580 acgcatgacg agaaggcaaa acgaaggttg actgtcccgg ttagtatgac tgtcagttga 2640 tccagaccat ggaagagcac gtacaaagac cccattcaac atccgactgt cttgacgcat 2700 cgtctacaaa ggtgctctgc agctggcatg caatgcaacc ctcgaacttc ctccctgcct 2760

cggtattgtt gtactcgcta tcaaagcaga cgatctcgga cggcagtgta gcattggctg 2820 ggctgcaagc actttcacac ggtgagcctg gcgttgtccg cagtgcagaa gcgagtctga 2880 gaagaccgaa tactgtccat ctcgagatag tcctcttgct gaagcctgag ggacccatct 2940 tgagetgace agegeageae aaateaaaee geagegaate teaaaeeeag aagageegeg 3000 caatcgttgg cagacctttc tggcatcgaa tccgaccttc ccttacagag gagaaaaaca 3060 aggtaagcga gcgaagagca cttgatgtat cgtagaatta taatagcctt atgaggagat 3120 aggegaagte ttegtettaa ggeaaggete eagtegeaeg ateagegeee aacegacate 3180 cgaactcgat tcacttgctg caactccaag cgaagtccag gttaccctgg cagaaaccaa 3240 aattgataaa aggccgggtg gtgcaatctg ctccaaggcg caagcttggt ccaagacatg 3300 accggtcagt ggccgtcgtt cgatcacaga tgaacgctgg gggcataaac aatagttacg 3360 cgcacactag cgcagccatc ctgcccctca ccggggccag acatccggcc agcagctaat 3420 caagaaatga gacaccggca ggggaccgca gaggatgatt ggggtcgagt gtgacgggat 3480 gatgggggat tgggcgtggg cgtgggcggg aatgtgatgt gacaagagat gcagcctggc 3540 ttatgcgcgc ttcggcaatc tcattgggct acgctcgatt ccctaacaca gtagtcggtg 3600 acaaggagca agcgaaaacc tggacttcga gtgccagtca aaggattcta atctccagag 3660 catattcacc tgccaattga attattggag ggcagacgac caggatttgg tggccgactg 3720 tragtaacgg aagacccccg ccgaagtcgt cacggaagac ccggggccag agcaattatt 3780 aagctggagt ggactagcaa taatgagtag atttatagat caaaatacag ggtttatttg 3840 cttgaatctg gtcaggtctg acactccaca tgcccgtacc tgtcatccgt cttgccctcg 3900 tecectgett gtaccaceca gtatteceaa gtacagteae aaacaaceae ecaataaage 3960 aaaacgccac tatgcaggcc gtatcttcgc gcgtggctag gaaatcaata gcgaaaaatc 4020 aaggtggatc gcaacacaaa caacgtggac gctgtccaac agcggatagt tccatgacta 4080 gggtctccaa aacactgaaa agcaaatatc aacaacaaat aaagaacccc ccctcttagc 4140 catacagate gtegtacgaa gggaccagtt cetgegatge agtgtteggg acegegteae 4200 gaacetttag cecettetga ggettettgt eaggeageag ttgtageggt gtatgttgeg 4260 cgagtcgagg atcgtcggcg ctgaaactgg ttcgctgcga gctcgccgtc acaggcaccg 4320 agaagatcgg gtctggagtc gtgctctggc cgctatggcg ccgcatccgg gcactgacgg 4380

ctaatgccgg cgata 4395

<210>	871	
<211>	2746 .	
<212>	DNA	
<213>	Aspergillus	nidulans

871

<400>

60 gttcagagtt cctcgatcta aacgatgtca tagccggtga agatccacgc agattattcc aggatcaagc atgaccataa tgacaacggg aaatcgcggt aatctactat agctggcttg 120 tgaaggagct cagatataca acagaccagg gctgatgaag atcttacaga ttgatcataa 180 ctgtctacac catctaaatc ccagatcacg ttacgcgatt gaagatggca atgagcggct gagagcaatg aaatgatatc cgcgacgaag gcaatgttcg cagagttcgg taatacaaac 300 tcggccaagc aggataatgt gccagatgtc gattcattct ctgaggaatc taaaactgga 360 cacategeeg tgeeettega caagettegt agacateetg ggataatgte ttttgtgegt atgttcataa tattcatgga ttgatgagtc agaagctgaa agctgaaagg ctggagtaga gatgggtctt ggcgcgctaa ccagattaag cggaggcgga ggcggtggaa aatgttcaat 540 tgattcacac aaaccatcaa cccgactcct atcgccagct aagctcaacc ccctcagcat 600 tattcaatat ggcggagtaa gtcccatggt tactgaatat gggtgatcga tcgcgtctaa 660 tatctgaaca ggaaagaagt aaccccctc acggccgtca aggtcgaggc cctggtacga 780 gaattccgtc caaattcccc gccatcattg aagattttcc gcgctgtgat atgaggataa gaatgaaget cataceggaa taggttgtga tgaaaateat caageactge teecaggttt 840 tecegacgae tgegaceggt tegategttg geatggaegt ggaeggegtt etegaaatea caaacacctt ccccttccct gtggtcgaag ttcctccgga gtcgcacttt gacaatgccg ctcccaaccc ggccgccgct gctccccgtg cgaaggccaa caccgtctac caggctgaga 1020 tgattcgtat gctccgggaa gttaacgtcg atgccaacaa tgtcggttgg tacacgagcg 1080 ccaacatggg caacttcgtc aacatgaacg tcatcgagaa ccagtttttc taccagaagg 1140 aaatgaacga gaggacagtt gcgcttgtcc acgaccccag ccgcagcgct caggggagcc 1200 tgagcctgcg cgcgttccgt ctttccccca agttcatggc cgccttcaag gacaacaaat 1260 tcacttctga cgagtatgtt tcacaactgg cacggacgcg agtaaagctg actagcgtag 1320

gctgcaaaag tccaacctaa agtaccagga catcttggtc gaactccccg tcgaaatcca 1380 caactcccac ctgatcacct ccttcatcca ccagctccaa aaccagaccc aggcgacccc 1440 tgctgagatt cccacctctc tcgccaccct ggagtcctct cccttcgcca agcagaccat 1500 cctggcgcct aacttcgaca acctctccct cagcatcgac cccttcctgg agaagaactg 1560 cgatctcctc cttgacagca ttgagaccca ccacacggag acgagcaact tccagtacta 1620 ccagcgctct ctcgctcgag agcaggccaa gatcacagcc tggcaggcca aacgcaaggc 1680 cqaqaacqct acacqcqcaa cqcttaaqca qccccctctt ccgqaqqacq agtggcaacg 1740 gctgttcaag ctgccacagg agcccagccg ccttgacagc atgctcaata gccgccaggt 1800 ggagcagtac gcgcgccaaa tcgacagctt cgtctcatcc acgacgggta agatgtttgc 1860 cqtcaaggqc aaccttctgc ccagcgagat cgccaaatga tttactggat gtttatgaac 1920 ggggatctgg gattcatgca tgaccttacg gcgtaaggga gggaaaattc ttgtactgac 1980 tgttaatatg tecettgtga ttatteegtg aegggtagag etaeggaata tgetagagat 2040 gctatctaca tgacttgaat actcctacca ctacactcgt aggtatacgc cagagaagtt 2100 ctctttcact ctcctcttcc ccagagtagc atcagccgct ctggaccgga agccggtgtt 2160 caagcgccgg ccgacaggtc ctacgagcga gagaggtctc tgtagatgac caaagataaa 2220 ttgaggcacc catggatagc tcatcggctt gttcttgcct ttaagtagac caaccggaag 2280 gcaccagctt ggtctatgat atgtctttaa aaaataaagt atttgtttca attcagatct 2340 tgattectag ggetacageg taagaeeetg aetaagtteg getteggaee tetaegagte 2400 tccatcatcc acgitcatit gicciticgi cagggaccci gagiaigici acgcicatca 2460 ttctcttatt cagtctcgtg agctttataa gatagctcat agtgcctcac aagttcgtta 2520 gaacgttgct tgcgcaaaat aactatccgt ttttccatgc ctgatgagca caagctcagc 2580 gagacgetag ecatattace atgeaaatea eegtacaeet aatgtteggg gtaetgeace 2640 tgtgagtacc gtaccgaaag gettggettt gacetetteg caagetttae cagtatteag 2700 2746 gctggtcctt ataacgcttg cattcttcgc aatggtaata ctttgg

<210> 872 <211> 1426

<212> DNA

<213> Aspergillus nidulans

<400>

gccatgctgt cgacgaggga ttcgatggtt tccgggcgct ggagattatg tctatcctga 60 ggctggatga taatgtcgcg acgccaggag ttagggtctg aatttgagtc tgcgagaggg tacagegett gggattteag eggtagatet ttgteegegg gettettgte egegttgeet 180 gcggcgagcg tggagtcggg ataccggtct agctcggaga cgtgcggggt gtcgatgtcg 240 aagtaggtaa tttcgggggc taggccggtg cgggtggcta gataggttgc ccagcaagtt 300 ttcatgagtt ctttggcgag gaggatttct tcgtccttac ggcgagtcca tgcggcggac 360 tttttggctt cagagagagg gattccttct gtagccccga gagcaattgt tccaggaagg 420 aagcaggcga ggtggtccat tttcggggtt agagggccgt caagaccggc ctgtcgctcg 480 540 cccaggacag tcaacttggc attcttggaa aatgtgatga ggtgtttgcg aattccgacg agggcctcgt cccacatgtc cttgtatatt tcttctgacg tctgaaggta ttgcttaaca 600 660 agatactetg aatgitatta geacegatet aetteaetge titgaeatea egtaeeataa taagagtege etetgetace gaggegaatg ttegeteece tgaaegttee egtatetgga 720 tagatataga tegggagaag gecateaggg gettgattgg egteaaceae ttgeattace ttctccacaa cgcgccagta ctcagcctcg cccgtcagtt tggctaggta cttgaattcc agttgtacgg aggtggcctc agccgtagat gaggcgccgc ggtctgaatg cgacgggata ccagtcgatg tattgaggtt cacactggca tacggaatac ctgtttccga ttcgaaagcc 960 ccaagtagtc tttccgcaag gtcggttgcc ttttcaatat agagatcctc ccctggggaa 1020 ccaacgtcgt cgtcgggaat gggggcaagg ttggaatact ccgtagagag ataatgagca 1080 gagagcagac caccgagcat gcgtattgtc gtttcaaaag tgctcacatc gtgatcctgg 1140 tcatattgta gcgagttatg aatccatgtg cgcgcatgtt gtacacgaga tgtcaagttc 1200 atgatcatca acgtgtccag tgcatccaca atctgccagc ccattccacc ctcgatcatc 1260 tgtttgccct ttttggtgac cggatgatac tcgtcaaagc cttccagcgg taaatgtcag 1320 taaacaattg ctctccaggc aggcacgtag agacataccc caggcatact gctcgtaacc 1380 1426 atcccaactg acaatgaaaa gattccggac cttctctcgt tgtgct

<210> 873

<211> 4531

<212> DNA

<213> Aspergillus nidulans

<400> 873

tgtggcgcga ccgagggtcc gctgacaggg aagatgcact tagcgaaggg gcatggatca 60 aaatagattg gatcatgaga tgcatggtaa ctgaccagga cctgagaaga gttgattgac 120 ggatctctcc cggatggatc aagatcgaga tcaatccgca acattgcaac gatgcaacag 180 tgcattctcc cagagaccgg gatactgcat gtggaaccgc gtacatgctt ggtgcatgtt 240 aagtgtgaag ctgcatatca ggtttcgtca tcgttcatcc tcgacaactt tcaatatggt 300 cttgatectg gatacaageg ceatgaaace ttaceetgea gaataagata egeatgteee 360 cacaagtetg etecagggee tagaettega aettettete eagateetge tgeataagge teggetgetg gggtetgett gaacttgeaa ageeegaete eetgtggage ttettatege 480 catatececa teggtgeteg atactgeace tgeacecegt accatatget teegaegate 540 600 cagtgagcca atcagccagt cagccaccag cgggtctgcg tacttttcga gcgtccgcaa 660 cgaacggaga caaagacggg aaatgggggc aattacgcgt cgatggattt cagggagact tgcagacggg gaagaagtag gaaccgccac cccgatcagg gccgacgatg gtactttgta 720 tgtctccata gtggcactgg gcaagatggt ttacgccaac tgtttgagac ggacaaggat 780 agcttcgcta ttgctttcgt cccctttccc ttcttggatg gttggactga ttggatatag 840 tagtcgacat actaaagcgc tgtagacaat agctttgttc ccaggtagtt ggtacaggaa 900 gatcactcca tactgaagat taaccaacca taataccatc aataccatca atataccacc 960 ggtcagcgat ttgagaagag ctcagtgccc attatatggg aggaacgcag cgtgagaacg 1020 gcttgtctct gggaccatgt actccgtaga cccaactgaa cagcactaag gcagtcactt 1080 cggctccatc caaccccgtt cctgaattgt cctaaatcag gagatcagca tggcgtcgag 1140 caagcaattg aactogggto accordicta gattateatt cttcactttg acaattggat 1200 gagaactaac actagccacg ttgtcaaggg cggcaatgat tctctgaccc aggtccgcga 1260 agatagcatg gaaccccgtc cgacaaacct caacatccta gcccctcatc cactgcactc 1320 atctgccgcg aatgaaggtt gcggtgggta atcataatag tagctttaag gctgcagcgc 1380 ggctgcagaa gcgtcgtcca cgcgaatgga ccagcagctt caaatggagc cggaggttgc 1440 atccatattt ggtcctgtct cttaccctgc agcgtctgtg tgtatgcaga ttctgagcgg 1500

agggatcatc gtctttaact cccgcatatc gataaagtcg cgatgattct actcatcaga 1560 acgggtggag atttaacatc aaggacggaa gtcactgcgc ctaccctgag gccacacata 1620 acagaaccgg cgacttgcat ttgagggctt gagctggtac taattgtgaa gctagagaag 1680 agcgtcgacg aagttactgg cggttattgt cgcacttgtt tttcctcttt cttggaagcg 1740 agatetgeag atetagegat gtggegegag tattgegeta eegtaeggta aetateaatt 1800 acccaaaatg gcagataccc gcgcgagcat ctcctccatg ttcagtcact gttgatctca 1860 gegettetag gtgaattgge ttttgtgeae gggettgtat getgttaeee gtaggtgage 1920 gttgcctcca ctaaccgaag ggtctcaacg tctccgccgc ctgtggccgt ctgtcggttc 1980 gttatcggta aactcagcca gtaatcttgg acttgacttt gtgcggcatt caaacagtat 2040 tcttacatat gatgccaccc atgtagttca aaaggaaatg tggatagttc cgatactttt 2100 geggeattaa eegeteegge egeetagtet eettagteaa tgagttggea atttgtteea 2160 tggctttgag atctcgcagc agttcgttgg caataattcg gagttattac ccgcatgaac 2220 ctgcaaatca ttgtcgcagt tggtcaggta cgggccaatc ccagccaaca aggatcgaga 2280 agetgtgggt gtggattgac ttgaaccgtc cttgcaccca ctttccaagt ttcaacaagg 2340 cctgtgtggc accataagcg tactaaacaa tggcgtctcc ggaatgcatg atcctgtgga 2400 ggcccggccc ggcggtagac gattgagcgt gaaaggggtt ggatatatgt tccggcttag 2460 ggcaaggatg gtgatcaata ctctgtactc cgtactggtt taactttgtt tcctcggcaa 2520 aaagtacagc gccatggccc tgggtccgtg taggtttcgg gaaatccaaa tgctcggtca 2580 tggcactaga taggctaagg gtgaacagcc cctgtgcgtt caaagtgagc ttgctgatgc 2640 cactgaggat gacgcaatcc gcaaaagtcc gtaaagcact taaactcaag gtcgaacatt 2700 gaggettete agecaatgte gatteggaet ceagaaceeg gtatatgeag gaegteteag 2760 ctgcacgaaa ggtccagagt tttacttcct attccacgcg aaccttcaat agagacgtat 2820 gatccacgtt tgagtttctg agttccattg agcgctcagg ccgttggcag cctcacttcc 2880 agtaatcccc ttgggatgtc gaatcctgaa accgttgcac tggcccaagc cgccccatag 2940 ggacteggea gaagegagte taaegaeagg gateeeacee gteegtetgg ttetgggtee 3000 gtccgagcgc catccaggag gttcgggagc tcccccagaa ggccaaacat ccatctttgc 3060 taagacgcca gggctaaaag gataaatggc tttgagaagc ttcacggaca gacaaactca 3120

ccttagcata aactctcctt tccactcatc tggcggaaag aaagaacagg tacctttggt 3180 aggegtgtcc gagegeagea atcecetteg atcacactet gtegetgtca agegegattt 3240 ccgcgtagtc agccactaat ttgcgatggc cgaaatgacc aactcttagg atgcccagac 3300 caaaagatga cacctgccat gattaattac caggtctaga ggtcaacccc agggtccaga 3360 ccggcggcgc tgcgagtttg acagtaggag ggccgcagcc acggccggaa ggttggtcaa 3420 tcattattca agattgacga tttcccttat gacaggtgat tgttggagac ggcggcccgg 3480 cctccccqcq acqctattcc ccaccqatca atqqaqcttc gaaqtqcgcc tgccagtaga 3540 atcaaccatc gagactgacg cttacccttt gaggactgca aagctccatt caaagatgtg 3600 aagaaagaga ttgcagccaa agtacagcct tttgtcatcg cggggtcgat gcgcgttgct 3660 cqqacaqtct cacqaacctt qqtqaqttqc tqacaqcctg ttgattcgat tccattgttt 3720 ggcgaacctc aagaaactct cagggtcttt tggttaattc gcgctcacga catatctcta 3780 ggatccaagc teetgtcagc eegtcaggge actgaggcag gttttggage tatggtgeca 3840 acgttcagat ctcacgggat tggggccggg atctttttcc tggcagccaa ctctgggata 3900 ggaatctcct tcgcttttct ctgtcgtaaa tcagaaaccg agctcgccag gatgacgcat 3960 acatettege gacegatece gattetgttg aagegeggta gegeacatat caaggegtag 4020 gcagactgct tatgacgggc tgccttagct tgtttgaagg ccggacaaaa caggttgtct 4080 tattcaagtc ttctaacctc tcaactgcac cttactcatg tagagaacca gtgatcgcta 4140 agaatctgtg atgaggatct gtgtgtcagg taaagcccct atgatctacg cttgcgcgga 4200 agaacgaaaa tctccgcggg tgttccgttt actttatcgg agtcacagtg gagctctcgc 4260 tgctcatcaa acggtatgtc tccagagtcg gggttggaga tactctcaaa gaaaacagtg 4320 qtqtaaacqt cgactqagtc tcgtggttgc aaccccctcg acatgcacag attctgatcc 4380 caggatgatg ccccttgggc accaattcga tagtctccaa ataaccgaat gccagttgcc 4440 caacttttag ccaaggcacc ccactaagat tttagacagg caaatcagca gatcagccgg 4500 tctaaacgag gccaattagg aacgcggatt c 4531

<210> 874 <211> 2711

<212> DNA

<213> Aspergillus nidulans

gcttacaatt gccccgtcgc acctgtgacg cattcccaac ccattccaac atgccacttt gaccataagg ttaaacgaag gaatccagtc agagcggcgc acagcgttca ggtagtcgtc 180 ccgtaccacg gagtgctaat tccaccaatt tcgacgcggc aggagacatc ctccggataa atagcagcgg ttgctatcat cccacgcaag cacggttaca ttcagtatgt ccactgggcc 240 300 tetgattegt tgeeageeca ttggeatgge ttageetete agttgteeae gagteattet gtgcaactgc aacggcagcg accgttcgaa cttcgagttg ttcgagggcg gcatcccagg 360 420 tcactattag acctcgtcgg ccagtcagca ctgcggcaat gcaaactcca ggctgatttg 480 agactgcacc tctccaggcg cggttagcga ttactccagc gtgttaaact gagaggagat 540 ggacggattt agtgcgtgat ttaacaaagt ctccgactgg gcggcgctct tggcgggcgt tcctaaatgt ggagcaagca agacagccat cgcgcgctgc cacccggcgg taaccaccat 600 cgacaaagga tgcctgtcat cttgtctcca gtaagcttcc agcctccatg ggggaggagt 660 cgtctcatga taccccaggt attctggcag agacgtcata caccgaaccg cgcgggcctg acaggttgta tcgcactagg aaatccaacg ccgaaccacg tggaattcca gaaatgacat gaatgcgtcc tagccaatca tacaatttat tgcgatccag cgccaattga ccccaacttt 840 gtggcactag cgtcatttcg cttgtcactg ggtttgtcag ctctacgcga gatctggcgg 900 tgcggtcgcc gcgctattgc aggtcgtgga atcagcctat tcggaggcat gggtcagcct gaggettgca ettegtaaca agtttcaace agcetcaace agtettaace aggactcaac 1020 gcagtcgaat atttaggtat cattaggtta tatagggaat ctcgaagtgg ttaaattgtg 1080 gaatctgaag cgagatccca tactactagt gcaatactgt atattgcaca gctagacaga 1140 taaacaaccc gttgctccgt acggtttctg ccgaaagaga gtgtatttga ctataaaact 1200 caactcggaa gcagagtatg gggtaaacaa attgcaggat ctgataggtc gacagtatcg 1260 acatcttatg caccgacatg gagaacctcg ctccactgcg tcaattatgt gcaaccaacc 1320 agcaattatt catcctgctt actatgcatg gcgtcagtgt aatcaggttt atcgacaact 1380 tcctcatggc ttggttggag atcttctaga atagatcaga tcaatcgcct tattggaggt 1440 tcaggtacgg atccagacaa atcgcaggaa catctggcgg tctcgcactg gccgtatggg 1500 cccacaggtc gtttaggtat caagagtega aaatcacgta aataagcatt ttcggtgtat 1560 atactgtggg gtaatttacc gatacatatc atccaagccg gtttatctcg gaataattgg 1620 ttttcgtcta tccgtcactt gttcgagctt ctactggggt gattcggagt gtgagatcat 1680 gcagtaagtc ggactatttg aacttgacgt ctgtactcaa gtgagaatca ccccaatctg 1740 ctacagcaat cagcgaggtg taagatacat actgcttgat gataggagaa aaatatggtt 1800 acataaatgt cctaaaagta cagtaaagat cgcaacagac ggctggctac aaaagcaaaa 1860 cacacaccct ctttaatccg cgttcctcat cagaaacccc ttcagaaagg gtactcggtc 1920 aatgatetea aateeeagae teegeeeeca egeaacagge eeetggeegg geacgttata 1980 aagettgtge aggacatege aggtgeeace gatetttgeg ttegtggegt accgeteage 2040 cgtatatete tegagegtga ggatategee tatgteeate ceatgegtea cagegtaete 2100 gattgttctg gagagggagg ccacatcgcc caggccgagg tttaggccct ggccggcaag 2160 agggtggatg acgtgcgcag cgtcgccgac tagggctacg cgcggtgaga tgtacgttga 2220 cgcatggcgg aaacgtagcg ggaatgaggc gacgctgcct tcttgcacgc ctgtgaccat 2280 tggagggaga tgagaggggg atggagtgtg ctgtaggcgc caagtgagtt cgctctcgtg 2340 caggitating togaggitag tgaccgacga ggacgagggg cgctccatgc gcatcatgta 2400 ctgtaaatct ggcatgccca ggcggaaggc ggcgttgacc atggcaatga aggctcccgg 2460 cgatagggac ttgaggtaag ctgcgttttc gaccgtcgtg gaccagacaa gggtagcgtt 2520 gttgtttggg agcgggagaa gggcgattgg gccaccgagg gcaggcagga agcgctggta 2580 tgctgtccgc gtgccgatgg ggaacggagg agggatatgg tcggcgaggg agagggttgc 2640 gacaatgccg tggcgctggt agtcccagcc gtctgtggtg atgtcggcgt accggcggac 2700 agggctgtta c 2711

<210> 875 <211> 4623

<212> DNA

<213> Aspergillus nidulans

<400> 875

tcgagagttg gtggcaatgc cctcaggatt tgcgatcgtg accccggcct cacggggttt 60 gggctttttt cttgcccagc acctgctcgc ccacacgaac ctaccagtgg ttgcaactgc 120 acgggcagac tgtcatggag tccgagaccg gttacttaag aatctcaagc atggatcaga 180

cgcagataag aggctcagcg tattccaagt tgatgttact ggtatcttta caacatggct gcagcggtct gacccattga cccagctgat cgttgtcaga tgaatcaagc atatccaaaa 300 tggcttcaga aatccgtgca ctctacccgg atactctttt acgtctggcc atcacgcttc 360 ccggtgtgct ccatgttgag aaatcaccgg ctcagattga tgttcatacc gcgctggaaa 420 gtttcaaggt caatgcttta ggacaaatgc tccttatgaa gcatttatcg ccatttctac 480 caggaaaatc atctccgccg tttgaagaca cccaacagtc gtccaaggta aacaggacgc tgcgatatet geceetaeat tegaeetatg caatgatgge agecegagte gggteeatet 600 ctgataacgc ctccggtgga tggtactcgt accgtgctag caaggcggca gtttttcaat 660 tagcaaaaac attcgacctt catctgcagt ctcgaagcaa agagcgagct atggcgattg 720 cgatgcaccc aggaaccgtt cagacagact tcacccggaa ttactggagt ggaagagcaa 780 tgcttcagcc cgaagaatca gccgcatccc ttgtagaagt cctatgcacg ttggggagtg 840 acgcaaatga gggtcgcggt cggtgctggg attggaaagg ccaggaggtc atgccataaa 900 cgattttggg accataggta ttgaaaggac cactggaata cagcctctgt tgctacttct 960 tcacctcgag ggccaggttc taacagaggt gtagtgtgta gtcatactaa ccagcaccca 1020 ggcaggttgt gctcgagtat aaaggccgcc agcgttatgg cgaataaata tagtgacacc 1080 tatcctgctg gactcaccaa atgctaaaag agatatccat aattcgattt gtttcaagtc 1140 aaggtcccaa atatgatgcg gttcttgctg aaagactgct taatgaaaga aacatttatc 1200 gtgtacacca ggattagaat atgccctttg ttgactgaat taaccaggtg ttcaaaatac 1260 agactgaagt ttaccaagca agcttcaaag gacaaggcga gtatatatat atatatattg 1320 cgcgaatttg ccggcatcag cagagcccaa gtcttttttt ttttttttg ccctgcctca 1380 tcgacacaga cgagcaaatc actgagcaat actaatcaac ctacctcgct caattatgcc 1440 caaaaaaagc caaaaacgca aatacacaga catacaccaa gatgatgata tgcaaagatg 1500 caagcgctca ctcaaacaac tccagaggaa tgactacata gcaagcatat accgcctaac 1560 tgatgataat ctgcgaaaac atcggcatca agcctacggc ctatatgtca aacaaaagcc 1620 aaaagggccc cggtggaggc cgtcgatgtc agcgcatgca gccacattcc tcgctaaatg 1680 ttcgccggcc cagatagttg cgattcagaa gttcgctaga aacggagggc ccgattgctc 1740 tgatattcgc ggtgtatgtt gatctcttct acctagttcg gcttagttgg agccaaacgc 1800

attctattca tgctatccgc gaaacgatat gctatgatgg tttaggtgat ggtcgctgat 1860 ctctgtcttg ctgattgaat atagtttccg ccaccgacgc acttcacggc gtggtcggtq 1920 actocatttg catgaagggg actaacaaga cggaaggaat tggatggtct ggatatgtcc 1980 tttatatggc tctgaaaggg ctagaaagtt aggcttagcc gagacgggct agacatagag 2040 acaaagccca ggtgacttct gtcattcgct cttatctata gaaaatgata tagaaatcga 2100 tacctttctt gtagagcagg gtgctcagat tataatgaat caaaagttat acaacaggtt 2160 tgtgggtcct tcccttcagt caatcggtta gggctagcaa ctcgtaccgg agacttcctc 2220 tataaatgct gctggtccta accetetetg tagtetetat agaateeata aageteteeg 2280 cagactggag acattgtagt atagctgatg tggatgcatt cgtctgagac tagcgaaatg 2340 catgtaccat gagttegeaa acctatagee etttatatee taaaccaete tagtggagae 2400 atttccgtgg aatatagaaa agagatatat aggggatatc ggcagtagga atgagaagaa 2460 tacctgctct ttatacctgt agtgctggga aattgcgaga ggcccaagtg gattgtacgg 2520 ctggacaatg gggaaaaagc acccgaggga aatctactta tcgaatattt actatggtat 2580 cgaacccgaa taggattcta gattcctgac gcctcggccg ggcgatcgca aaattgccaa 2640 atggttaagc tgcgaagcag ctggcagtta gggttcagac ccatatgttc acaatagcca 2700 cactattgtt tcggcttgtc gatcggtcag ccatgaatca tctgcaagtc gtcgaaagat 2760 cgagcccaga taaactccgt gaaatgacac tgatagggtt tatgattgta ccggctggtc 2820 gagaggtccg gtaaaagcag gctgctgcca taacagaaga tggttggctt ccatcaggca 2880 ggtcgtatcg acactattgt gcagaataca cagtgtaaag acgatcaagc agtttgtact 2940 gaggtattga gegtaatteg tetteaagte ggteaattat ttteeataeg aegeetettt 3000 ggatgtttta gacccgtgtc actagctccg tcgatgcaaa aacgcagaat tggagcatta 3060 gaaaagggca ccaatccggt gaatgattgc aaaagcaata acttcataca gcacagagct 3120 tegggeateg gttgeegaga agtteeagta atatgeaaag gtaceagage acattegaat 3180 cataggtacg cacggaacag agggagtctg gtcggaatta tccagtcaga gtggctttta 3240 tgagcgcgag gcgtacagtc agacattgct cctttcccat cacatttgcg aaacgaatat 3300 tegacagtae gggttggett aateaetgge teeatgeggg gatagategg agteegatga 3360 aattcgacgt tccttgaact gacgcataca tgccacggag tatcttgaca tccaaatacc 3420

ggattgacca agagtcgacg ggatttctcc gtgtcccttt ctcacccact gtccaccgca 3480 gcctgaagac ttgttgccaa gcggtacatc agctgcagta cactggtcga tgtatcttta 3540 taggccacgg ctcctttcag acgcatctgc atcatggata cggatggtct gcttcctggt 3600 gtgegtettg geeggattag egtagaetgt acataeteeg ttgtegeegt aetgtagegg 3660 gtcgccgagg aacccaacta ggcgagttcg aaggcgagga atacagtaca agattctctg 3720 tggtggcagc agcgatgggg cgaaggtttt ttgttggtca agttgtcagg aaaqatgaca 3780 ttaggcatgc aaatgcaata tcataggctg gagtatgtat tatcaatgcg aggggcattt 3840 agtaaggcgt cggaaattgc accgcggtat ccagcactta ctagttcctg aaaacagaaa 3900 agaaaagctt gtggctcgaa atggaatggc caaattttcg ttgtgtgaat gcgaaaagca 3960 tgattggcag gcccacattg ggatgccact tttctgccgt tggatcaccg atttcgcttc 4020 tegtegegga ggggteeate cataagttge tttecacega caetgacage teetgetttt 4080 aatactttcc ttttctccgt tcgggattga gtctgcgctg tactattttt ttttcaccct 4140 ggaaagaatt tgagtgccct tgcggtctta caagctgtcc atcttctgaa gaactttttg 4200 · ttcctgtact ccctcacttg cctctttctc tatacaactt cattcagaca gcacatttag 4260 caacaatgag cggtcaaaac gaagataccc gcggtgagtg gtatttgtga atttggtcaa 4320 ttcagctgct gattggcttc cagtcctggg ttacgaccct catgtttcgc ctgagtttgt 4380 tcagtccgag attccttctg tgagtcacac ttctaggtgc gattgcacca agcatttcaa 4440 cggcacacac tgcttcgtaa gccgctaaca ggattgaata gaacgagcac tccattccta 4500 cggtccgctc tggccgcaac caggctgtcg aaattattga acagcgcgat gaccgccttc 4560 tagtggtcgt tggcccttgc tccatccacg atccctttag tagggttaat tcggccgatc 4620 4623 tag

<210> 876

<211> 6835

<212> DNA

<213> Aspergillus nidulans

<400> 876

tagactagaa gaattcgcta gagaattaaa tcacagtgac cgtcgagctt cctatatgtg 60 tcatggacca acgttggtgc caaccttgat tcgttattcc agaagtcagc aacaattata 120

caagaactgg cctgtacagg gcttatccca gaccagagat tcaatcagca gttggttcct agtggaccag ctcgtcgcaa ttcgggcaat gctcgaatca agacttcggg cgtactcgtc acagaaggaa ctagttcaga gaaaactgat aaactattat taaactctat attactataa 300 tcctataacg ttgcaatatt ataatattat aatgctgcta ggccagcagc agctatctgg 360 caagtgccaa gataatatat ttttagatat ttttcataaa ttcattatat ataaataaat 420 aagcaataat gctcagtagt ctattagtta tatctccttt ttttttactt ccaggtgtat agatcgaaac caagcagggt taatctatat tttatatatt acatagatgt tataggtttg 540 tattacagac atcagaaccc acgcagtgac ccgcaaatcc gcgcggactg aagattttgc 600 aacctgcacc gcaccgctgc ggtgcggatt gacaattcta cgcagggtct tggcgggtga 660 ccacccacag ggacctttct ctgagagtta ctatattaca gaactgcggg gcttttgctg ccattctcag ataaggcttt gtcatggtgc tgttactagg ttatatctat ataactccac 780 aaatgtattt aggaaagaca tccccaatct ggagatctcc aaggtttagt cccgtattaa 840 attettegtt teettateat tagetetaea tgggaetggt gteettaeet ggetaaeagg 900 ctgatctgcc ctgacaaagt agatccttaa caattagtgt ctgcataagc attggcgagc 960 cggagcttgc aattccgata tcccaaatag gaaagttcta tatatgacta gctgttatat 1020 acggtggaaa ctgataagaa aagctggtag taatcctgat ctttgctagg ggcacacact 1080 gacagctgag gagcacatac tgccctgggt cttgaagcag gcgagagcca gtcagtaaaa 1140 cacggaaaaa tgccattgta gctgcggtag cattgcaact agggactagg cgccatgtcg 1200 gccatccaat aatgacaget gtacgteeet ttecacatet cateccagge aceggtgete 1260 gggatgagcc ctcacataac agtttcatat cacttttagg cgctaaatgg tggctcacag 1320 gtttgagagt tatgggtgga aatgcggccg cttcacagcc ccgattgcag ttaatatcat 1380 tgtcaatttc acaggtcatc atagttgcaa ctctgctcgt cttatcaaca tgcagtgata 1440 ggtcagagga tttgattggc cattcggagt ccggttacgc accgctattc ctataatggt 1500 aggtaacatc aggtgtcagg ctccagccag tccagctgca tgttctgtct ctctggcaga 1560 taaaaaaaag ggcttaactc cttcacttcc ttccgctaat caccgcatgt cgcaaatatg 1620 acttegaget etetgeeetg tetggetget geegaegetg catteggace eegtgteagt 1680 gtcgcatgcc gagcctttga cttcactgtc tactttgagg atttgttctt cgcctgcctg 1740

cccgctgcgc tattccttct atgctgtcca gtttctgcat gcctgcagtg gaaggagcct 1800 cgtcggatta agcgatcgaa actgctcatt tggaagcttg tatgtcgcct ttcccttctt 1860 caggatatga ccaagtagac gactacctaa tgacacttct gaacactgtt ctagatctcc 1920 ttggttgcgc tttgggtgtg cgagacaagt tttcttgtcg tgcggagact aggttaccca 1980 gccctccgaa acaatgcttc gttggctgcc gacatgctgg gggtggtcgc catcgcaggt 2040 cttttccttt ccgctagatc tcttttgaca attgccagag tgagaacgct gtggcttatc 2160 ggatetteaa eeaatgagge eatagttete aetetggget tgggttteae eatetgetea 2220 gtggttttcg aatccctggg taaggaagct tccttggttt cgtcaacgct gaagcccgcg 2280 acacctgagc cetteagtgg ettetggaaa eaggegaget tegeatgget ggeggggaeg 2340 ttccaccagg gctactcaaa cgtgtttacc gtcaccgatt tgcctgacct tgatccgcaa 2400 ctaagtggta gagatgtcgg aaggaagcta caggaggcct gggcccacaa aggtatacag 2460 ggaactcaaa gtcgccatat acgaaaagaa agatctgacg tatgattcac cgtacaatta 2520 gaggataaat eggeaaaaea egeaetgete egtteetgte tgegtgeeta eegeaeteeg 2580 tttaactcgg catttattcc gcgtctgtgt ctgtccgggt ttacgttttg ccaaccgttt 2640 cttgtcaatg caacagtttc ctgggttggg aatacctatg ctccaatgga ctttggcaga 2700 gccctgatag gggcatttgc cattgtttac tgcggaatgg ccgtgcgtcg atactctatc 2760 atccctcctc cctgcgacgc gtgaacagct actaatgtaa tcagctgacg gatacaggcg 2820 agcaatgcgc tttacggata cttcacgttc cgctttacga ttcgcctccg gggcggcttg 2880 atctcactta tecaeggaca aaeggtgeag aecaaagegg caeatetggg eggaaacaca 2940 gccataaccc taatgggaac cgacgtcgaa cggatcgcaa gtggctttcg attaatccat 3000 gagatgtggg ccagcatgat cgaaatcggc gtcgcgattt acctgctcga gagacaggtc 3060 ggggtggcct gtatcgtccc cgccctgatt gttgttggtc tgtacttccc attatcctac 3120 ctaatttggc aaattttcgg gattctgacc cttgctggca gtctttgtcg gtgccacagt 3180 caagetetea geagetagea gtaceteaca gegtgettgg attgagagag ttgaggageg 3240 gcttcggatc acctcatatt ccctggagag gatcacagag gtcaagatgc tgggattgtc 3300 agaaacaatc tcgcgcgtaa tccggggtct tcgcgcggct gaaatcgctg tatctgcagt 3360

gtttcgaaaa ctgctcattg tgcgagttat tctctgttag tcgtccgagt cagtcaattc 3420 gtagattttt aaactgatca gatattgtat tatgcagcca atgcaccgac aaatctggct 3480 cctatggcga cattcgtggt gtacgcaatt attgctctag tgagggacga ccgatcaatt 3540 ctcgcggcca cagcctttac ttccatttcc ctcattagcc tggtgacgac cccggtgttg 3600 actitcatic aagcacigce ageggitata caatgetigg gatgetitga taggatecag 3660 gaatattgca acgaggtgcc ggggcctcaa cgtgccgata cctccgacca tcgacctttc 3720 ccgggtgctg acggtgatac gccaatagct ttggtgcagg ttgctggttc ctcgaagaat 3780 ggaggtgcca tacaggaaat ggaaggccag agttttggat gggaccgatc tgcacccgcc 3840 gtactccgca atattagcct ccaggtacct cgagccgcga taactatgat tattgggcct 3900 accggaagcg gaaaatcgac cttgataggg agcattctcg gtgaaaccgt tgctcttggg 3960 tgcccttatg aaggtagtcg atctggtgtt gcatactgtg gccaagagac gtggctgcga 4020 agccaaacga tacgccagaa cgttcttggt gagcttccaa tggatcgaca gtggtataga 4080 acagtcatat cagcttgcgg gttgcaaaaa gatctcgctc aacttcctca gagtgacatg 4140 acaccccttg ccggtaatgg gaccacgttg agcgggggac agaaacaacg cgtcgtaagt 4200 ggaaaaagac cgctaccctt acggctgact tgctgagcgt cttatattag gcattagcta 4260 gagctgtcta ctctcggcac aaaattgttt tgctggacga tgtgtttagc ggcattgatg 4320 ctacgactgt ggaacatatt gccagacacc tgtttggtcc tggaggactg ctacgcaaga 4380 tgcacacaac agttgtgctt gccacccact cgagtacgtt gcgtctcata gcgtcttgcc 4440 cagccattga ccaaaaatgg aattcgtagg attcgttctc caatacgccg ataagatcgt 4500 tgtgcttgcc gatggccgca ttgtcgaaac cgacactttg cagaacctca aagccggcaa 4560 egeetttgtt caggatatgg ataatgetet accaatteee teteegetag etateeaata 4620 tgggaaggag accatttctc cctttcggga tccagatgat gatgatgatg atgatgatga 4680 tgatgacgat agcgacgagg ccgagtcatg cagtgaacaa caaagtcaaa gtttgagtcg 4740 tcagcaagga gacctgtcca tttatgccta ctatgcttct gcctcgggga agattacagt 4800 cgctttgtgt ttggggtgcg cactaatttg ggccatctgc ggcgagctca caagtgagtc 4860 tgaacctgat cgtgctgtac gatgtactag acaccctgct aacgaggaaa agctgtgtgg 4920 ctcgatatct ggacgtcggc taatgcggag catcccaact cgcggcttgg catgtacctg 4980

ggtgtatatg tcttcttggg aattgccagt attttcttcg cgatcgccgt ctcctggtac 5040 gattacgcct gtctaatgca gctgttccga agaactaact caccaatgac attgtgtagg 5100 cttctcatgg tcaatatcgt gtcatcctcg gcgctaaaat tgcatgagag agtgctgacc 5160 agtacatttc gggcgccaat ccattttttc caccaggttg atattgggag tatcacgaat 5220 cggtaaagag catccctccc catccacccg gtgcggggcgc tgacaatgcc caatcaaagg 5280 ttcagccagg atatggacct cattgatatg agcttgccta tagaagtctt caacgtactt 5340 gcctgtaagt ctgcttgaac atgggtttgg cataccggcg agactaacat ttatgctaat 5400 gttagggggc tgcacatgcc tcgtcaagct ggttatcctg tgcgtcttcg ctaaatacct 5460 gtccgttgcc gtcccctttg cgggcgcggt ggtgtatttt acgcaaagat tttacctccg 5520 tetegagete gteaaagggg etgetaeggt eegegegtte ggttggeage geagetttga 5640 cgaggeetgt etetetette ttgaegeete geagegteea gtataettge tgttgtgtgt 5700 gcagcaatgc ctggggttct ttttggacat gctcgtctcc atattggcta ttatcctcat 5760 taccaccgtt gtatttctcc gcgaaaaatt cgacccgggg gatgtgggtg ttgcactggt 5820 tatggtaatg accttcaata atacgttgat gcagctcgtc aaggactgga cgaatatgga 5880 gacatctatt ggtgccgtgt ctcgcgtcaa gggctacacg agcacgacgg atccggagga 5940 aaacactgca aatgtgccgt ctctgccggg ggactggccg gctgttggga gagtcgagct 6000 gtccgctgta gtagccagcc acccgtgagt gtagcttacc cagaagtgac gattctgacc 6060 gactaagatg acgttattag gagtcgatcg gagcttgtct tgaaggaggt ctcaatctca 6120 atcaaggcgg gtgagaaggt tgcaatctgc aggccatctg gaagtgggaa gacatccctc 6180 atcettgeet tgettgggat ggtegaggta caagagggta ceatcageat tgaegggate 6240 aatattctgg agcactcacg ggctcaagtc cgcaggaaat tgaacgtcgt gacacaggac 6300 cccttcctga ttgctgggag tgttcgcttc aacattgatc ctttacagac agcgtccgat 6360 cagaaaatta tcagcgcatt gcagatcctt ggcctgtggg ataggattgc acaggaaggt 6420 ggcctggatg gacgaatgga accagacgca tggtcgcagg gccagagaca gcttctctgt 6480 ctcgccagag caatggtcca acagggcaaa ttattgatcc tggacgaggc aatgagtagg 6540 tatgctatgt tatatgccat cacaaacgcg gacaatgctt acccagcctt ttttcccagt 6600

gtcgacaacg agactgaaga cattatgcaa gcagcaatca acagcgagtt ctcatcgcat 6660 acagtcctcg ctgtcatgca ccgcctgagg catatttatt gttatgaccg cgttgtcctt 6720 ctcgttgacg gggttgtggt cgagttcgat tcgcctacag cactacttac taaacagtcg 6780 cgctttaaag agctctacga gagtggaaag atgtaattat gttgactcct atata 6835

- <210> 877 <211> 1961
- <212> DNA
- <213> Aspergillus nidulans
- <400> 877

actgtagctc acgacacaat acaccaggct attggttccg ggctcgtccg tccatgacga 60 cgaccgttga atccgtcgta cgtgttaagg gacgtattta gatggatctt cctatctagg cgtgccgtac gtacaagaag gaatcggtaa agaagaaagg agaaagaagg attgttgttg 180 tgaagtettt taggtggete acegeettea ggacagegea ggeettggee gagteactaa 240 ggtctaaggt tcttgtatag gcaaaggacc cataacagta cggggcaaag gctctgtcgg 300 cgagcctccc cgtaccatgt tatcggcaaa tggccgacgt tagccgctac taagacaact aagacaactt tctgcttggc attggggaag tgactttgca tgtatactgc ttgatggtgt 420 tctgggtcat cttgttgact ctgaggcaca cgtcgaccgt gatgatccgg gttgacatac 480 actgattcgc ttgtctgctg gagaagaaaa ccaaaagcat gctcgttagt tacgatcagg 540 cgtacgcaga taagcccctt gaagacgccg cttcgcatct tggtgcgagg tcgtcgaggg 600 660 acgtacattc agggtcgtct ttgcgatgcg acatagataa gcacctgccc gactgatcgg gtgtatcagt cgcttttcat tgcttaatgc cgcccggcat ctgtggcgac cagaacactg 720 gcgccgcagc gttcagagcc agctgcagag gagaccagag gggtagctgg ctgctatatc 780 cggctccgct gggctctgga ggactttggg cagacagtgg attaggaatg atcgcctcag 840 cggtattcca aaagctctac aagttagtat aatggtgcca tgccgtggct cagtccaccc 900 aacaaaccaa ccatcatgga agctgttatg aatgctcaaa ggggaaaggg tagaatgaag ctatcttgat gacgatagtt ctttcttctt caatgtacga ctcctcgagg gatcaggcca 1080 ggggccagag atcatgccat acagatcacg tggcacgtga cacgaggctc aacatgatat 1140

attegtatea gaageaaatg cegtgetaea gatgaeetet tegaaegaatt tettaatget 1200
acaceegeeg aagetgtgaa taataegeat ttgattaatt teetagatatt geetaeaeta 1260
taatategtt egeggtattg teetataeegg eetgegeagt eteeteggaee tagtgatgta 1320
ttttteteat agettaattt ggtaeettggg atgtgeete ageegttete eataeegag 1380
ggaeaggaaa ateatgeeea teataageaa ggatataeea geeagaageg tatteeeeaa 1440
geettggeea agagtaetat acattegggg aceegeeagg ggaagaageg eaceeceeae 1500
actgeggaag acegtattgg eageggtgge geetggeageg tacatgggaa atgegtegat 1560
caggtaegte eeaaeggggg tgaaaaeegg gateatgeea ageeegatga aaaatgtgee 1620
cataaeagge acgaaeeaga agaeeetate teageggtee ageeatatat gagtaageeg 1680
ataggaatea tagateeee aaagategtg gggggeagae ggtatteggg etteattet 1740
cegeettggg etgetegett aaegattgea teggaaaeaa geeetaagat eaagaggeeg 1800
geaaattgae eacageeaea geeaagatat ateaggeeea eattggtgge gatgeeatag 1860
egeggteagaa agaegteegt taetgtegtg aataagagg tagagegttee ataegegaea 1920
geggteagea atgagagtee gaaaaeeae ggegagagge t

<210> 878 <211> 2933 <212> DNA

<213> Aspergillus nidulans

<400> 878

tgccagttgc cgacgcgagt caggaggatc tggtgcggaa gaaggagtca tttgagaatc 60 ggctcggcac gacgcattgg ccgaatgcga atcacacggg atcgaacgtt gcgacgaggg 120 atgggaagga gtgtccgtat aaccgattca agccggtaat ggagccggta ttgaacgaga 180 gggcattcag gttgacgggc attccgtacc ttcgcagcca ggcttaggtg ttttagcatg 240 caatagcttc ggctcattta tgtattatat gcacatcgtt caccccgata ttttcgtaac 300 tcaagcatcg cgctggcacc tccaaatcct ggattataac ccatcgagac agaaattcgt 360 cgcaaccctg cccgacaagc tggcctattg atccagccgg gtgccggcac tacagcctag 420 gggagccgag gtgtaaggcg ccttcgtctg gcaggcctga ttaagctaat agaattggac 480 caatgctaat acatttcaca aaaattggcc tgatatgctc ggggtcactg ctaataatgc 540

tgttctcatt tttcaatgtc tgatgaccag atattcgact ctcaccagtc attcggcgcc tagccagggc ccgaacatgc gtagcaagag cgcgaatttt agtggtcctc tatgtatttc 660 cgatggccag cgaaccagtc gttcccgcct ttgcagttat tgtttagagc agtggacttt 720 ttatgcaget gtaggtacta getaceettg gggteacatg gtettaatge etggeteace 780 tgatgtgact tgcagtagat aaggttgcca ctacaacctt tcactgatca cgacacacac 840 actagatgcg ccagggcagg cagtactacc cacccaacgc agtggttaaa gcgacaagct gccttctcta ccctcatagg ctgatcgctg cacgatgcac aacccctgtc ggctagagct 960 cccctcgctc cccaggttca gccgaggtcg gtccgtccga aaggcgggga aaggtactcc 1020 agattcgttg aacgctggcg ctcccggtcc gcttccttcg agcgcatccc tagattttta 1080 tccaacgctg tctcaccatt cagacgatct agattgtttg cttaacaaca gtacactata 1140 caatactaca ctacaccccg tgtggagact tccaagatgg gtagcgcaac catcaatcaa 1200 ccggtcggta atacggacta tacgcagtcg accgttgcga ttattggggc ggggatttcg 1260 ggtttgtcgc ctgtttggca tccttgatcc tgacggtgct gtgttgctga tatctgacgc 1320 caggaatgtg catggccatt gaccttctcc gtcgcaacca ccgcaacttt gtcatcctag 1380 agaagggcag ctcggtcggg ggtacctgga acgataataa atatcctggc tgtgcttgcg 1440 atggtacgcc gtagcttgtc ctatatctga tgattggtaa taattggctt cgcagtctgg 1500 agtgccctat acagctattc ctttgagcag cggtctactt ggacacgcga atacccgggc 1560 caggaggaaa ttctgcacta tctcaccggc attgctggga agtacggtct ctacccgcac 1620 atcagattca attcgaccgt cgaggaggcg cgatgggacg acgaggcccg gaaatggaag 1680 atcaaggtgt ctgtgtccgg cgcgaaagat gcccagttcc aggagggata cgaactgtcg 1740 gcaaatgtgc tcatttcagg tgtcggacag ctgaatcagc cggcctggcc aaatatcgac 1800 gggatgaatg aattcaaggg gaagagtatg cattcggcgc gatgggactg gacgtacgat 1860 ttcaagggga agaggatcgc tgtgatcggg aacggtatgc tcagtcgagt gggatttttt 1920 gggtcaatta ttttggtaga cagaatagat gctgattgaa cttgacaggt gcgactgcga 1980 ctcagatcgt accagaagtc gcaaaaacag cgtcgcatct gacggtctac cagcggactc 2040 cgcaatggat catccccga gacgacaagc ctgtgcaccc ggcgcagaaa gcattgctct 2100 ctttcccgtt cttccgaaac tgcaagcgct cgttcatgat gctctaccgc gagatgagcc 2160

<210> 879 <211> 3005

<212> DNA

<213> Aspergillus nidulans

<400> 879

gaatatetta gtetggtaca ttaccetgeg acteetatea tgaattetet gaagteaaga 60
ttaageeata ettttttt tggeagtgat geggtactae egtateteaa agtagtegea 120
etageeetaa tagagaetee gageaceaga geteeeett aagagtegaa eteegggaet 180
accacaaaca aaggaaatte tttagagggt tgtetgaegt gtatatetee agggttgtga 240
gaatageaat atatagetge etggggaatt eegtaggete aaageetget agggaagate 300
ggagtaaaat eateggagta taaaaceteg tateggagtt eagtttegga gteateateg 360
accetgacaa atgetgtaca eaatetattt etaagetaga aaageaatat tateeaaaeg 420
gtegagtett gtgtagteet tacegaatge gagtgeaaaa gatggttee aeggeeatet 480
gagtgtteaa tactegeeg aggatgteat tggegtggte gtaattgega etaaageetg 540
acteattega aageeagaee agaeeaggte ggtetgggga ggettttgae eacateetee 600

ccaaaatgac tctcttgact gcccaaagac aaacaggggg ggcagaaatt tctcataggg cgcgtccaag cctctaatct taggcagacc cattatccat gatgaatacg aagccgaaaa 720 cggaggetgt agtggeetga gteacteget egeaegeeet teteetetta tgeeateate 780 gccatgcaga cagccccatg ttggcggcct agcccagtgg agggctqaaa aaatgacacc 840 ggactggccc gccatcaagg tgtgtggaga ccatcctgcc aaaggtctta ttgctaagct 900 tcaatccaag tcagtcaaca tctggtatgc ttggcaactc cgacgaggat tcggagtaaa 960 ggacgaggca aggtcattgc caagatgact cgactagacc tgaggatgga tatataaggg 1020 gatgaaatgc tcgtctccat cctcatcatc atcaacatcg ccagcaaaaa caacagcagc 1080 tctgaacgca acgttcctat accagattga gctcgatcca atctaaactc tacatacaac 1140 acaatcctca aggacagtct acaaacaaca agttgatcaa gcatctcagg cacttcagaa 1200 actitaagac tetgageata eegattgeat teaaaatatt eecaagaace eattgegage 1260 acteccagee caaagattea acaatgtett ecaceaacaa gteeteteea aagaeetteg 1320 acgacgette gtegacetae tetacageet egactteeae egteatgaaa gagaaggagg 1380 aggccaagca caagtggcag aacaagaaca agagcaacgc cagcaacgcc agcaacgccg 1440 actocaagaa caaggacgca gccctccatt acgaggccat ggctcattac ctagctttcc 1500 gataagtggc cgccagccac ttaaggcagc aatatacgtg cgcgcctatt acgagcttga 1560 tcctagaaca tggatcaagc aataacgctt atggatatga tgattaactc cagttccatg 1620 tcgctatttt tactttgatt gttttcaaca agccgggatt actggtcggt atcttatgga 1680 gtctcggtgt ctaatggata tttgtttatt cagtataatg tgtaattagt tatgcttcat 1740 agaattcata ttttttcacc gcaatctatc cttgacttac ctatggtacc aggcaactac 1800 gtctctatcc gtcaacccaa accctattta caataggagg gagtttaaat acctgggtct 1860 tagtcatagt ctaagcaggg ttgtatataa actctaatgt tttctgttag ggttatacaa 1920 agtgcaaact ccacgtggat aaatagaccc ataccaacgc tatatataaa caaacccacg 1980 ctacataagc acattgccct aaccactaga ctttatagcc caattcttag cacatattgc 2040 tttgacaatt ctcattatat tcttcatcag gtataatcat tatcaaaaca aaacacgctg 2100 agaaaatgac gtgatgcaaa tctcgaccat gaatgaggac acaggtgagg cggcgggtaa 2160 aatatgtcgg gtgtctcgct aagttgcacg tgaccaaatt aagagtcatc tgagccacag 2220

tgtcatttac ccgtcaattc agaattcat ctgcttaccg tacacattga agctgcgatc 2280
atcaggcctg caactagttt tcaatcattt ttgactggaa aaaaggttcc tacaatgtct 2340
ttgattggac agaacaaatg gttcaaaaaa tataaagaag aagtgaaaag tggcaagctt 2400
gacttgcctg ctttggaatt cgtgaggctt cattatcact acattattga ttaactactt 2460
gctaagtcct tactgcgtca aggatgcgaa tcagaatgtt gtcatatact atggtgaagt 2520
cttctgtcgc tacgaagatt gtgtgaagaa tcgcgtgggt attcaactat tttctagctg 2580
tttgtcaact gttcattaac tgttttacaa ctacttagtc gccattctct accactaata 2640
atctccgaac ccatctccgc gatcagcatg actgtaaatt agaggagagc aaagggggtc 2700
gcaatgctca caagacgatt aatctgggca tacgtgagga tctccaacta cctggcaact 2760
gctttctaac tacttagaat ggtacaaggg cctcttctc gagcaagatg cacaccggcc 2820
agttgccctt gaagatgaac atgaagccgt tcagcagcaa attatcagca atctacaaac 2880
ccagtccaag tcagacctgt ccgcggccct accttcctg ccccgaaaga aggatggaac 2940
agtaagatca attacctgtt agctactta tagctgcttg ctaactactc aggttcatat 3000
ttcta

<210> 880 <211> 1821 <212> DNA

<213> Aspergillus nidulans

<400> 880

tcagcgtcta tggccgatat cgaagcagaa gtccccgaag ccggtcacgg tcacctcgac 60 gaggacgcta ctcgcgggac cgttctcgct cgcaacggcc gagccggtca tactcaccag 120 ttcctgcagc tcctgctcct gctcagaacc acgcgtactc gcagcagcaa cacgactcct 180 acagtcaacg atcattcgct ccacaacctc atcctcaagc gccacaaatc catcacgtac 240 cgccgcagaa cgcatttcct cctccaccac cgccaaacta tcaaggcgcg tggccgccgc 300 ctcctccacc ccaaatgccc aactttccgc caccatttcc gcagatgcca cacatgcaga 360 tgccaccagg tcagattccg ccccgccag ggccgccggg gtcatatggt tttcctcctg 420 gcggaagagg ctggcatcaa caacctcctc cgccgccgc gtccggacgg ggctggcggt 480 agctatgggt ctactgtagt gtacgatagt catgatattg ataagctttc aactggacag 540

taaacaagcc acaaacaaga ttaggctgac aatgatacaa atatatccac ccagcttctg 600 aaaaaaaaa aaaaggctag cgagaccaga ccagatccga acagcctagt ccagccgaat 660 cacgcagcct taagccgaat aaaagtaatc atcaagcatt taggtactcc acctatttcg 720 aaatactccc actgacaccc cggaggagta gaatctattt cgaaggcgtg ggcgttggaa 780 cggaactaga ctgcgcagcc agataacttg cctcggcctt gctcttttca atcgcctcct 840 tettgteetg gatageettg tegtagggga tacateeget ettgaaaagg gaetgegtae 900 cgggctgtcc atttaagtta gtacggtcgc ctctgagtac cgtcgagtag ttctctcagt 960 ttgaaagaaa aactgcacct tttgtccatc aacattccca ctgggagaac aacacatcac 1020 tctgctcaaa caatcgatgt tctcctcatc ttcgcccata gctctacctg ttcccagagt 1080 cgacattagc tttcgttcca tctagaagtt tgggagaata gaaggatgaa gatatgggag 1140 gatgggggca catacactga aagcctacta tactactgat cttcacgccc tggaaccacg 1200 gtatcagacc gccgatcgcg tcctcaccga ccacgtcgtc cgcaagactg tccacggatg 1260 tgcagcactg gcgtgaattg tgggttggtg ggcatgtagt cgggtcgagg gaggaggcgg 1320 cggaggaagc aatgagggtt gcgatcgagt ggactaatga ctgcgaggcc gttgcttgct 1380 caggtttaag agatggaatc ggtcgttctg gttcctggat ggaggggccg ttggcgttag 1440 cgccagcgtt aacgctggcg ctggcaccgg cgctggggct ttgggggaag gctgacggga 1500 taggagaact gttgatctcg acagggttgg cgaaggtcga ggttagagga aaggcgacaa 1560 agacggcgag aaggccagga agggtgctga attggagttg catttggcca atgtgtgttg 1620 gatgaaagaa gcaagaatgg gttattgcca atatacagag aaaagaggga gagatgaaaa 1680 gagttatatg tgagaatatt tcgttctggg ggtatagtga gcagacgggt accaatccag 1740 agcagagatg gaaccaagaa taaaggatag aggaagagac agagcctggg actaatcatg 1800 ttgatatggg acaataacag a 1821

<210> 881 <211> 2688 <212> DNA

<213> Aspergillus nidulans

<400> 881

ctgaaaaagg aaccgacagg ttgcattcca aaaacaatac ctagcctagg gtaagagaat 60

cagaagcaat cttcaactgc ggttacctgc gtctgtatgg ttgctggata cttttcggat gacatttgct acctggtgac agggaagatg ggatatatcc cttgaagggg atagatcatt cttagaagca taagccttaa gccacgacca gcaaattctg ttgtgatacc atgagcacga gcagttgggg ctttagttca acgccagccc cagaagtgct ttctcactcg gaataagctt 300 taatctcgaa tctctaatat tctgagatgc tggcttcatt ccggctctga gggaaatgct 360 gatacccctg taggaacaga agtgcatgca caatgtgtac taatctgttg catcggcgga gtaagtggtg gctctagctt agggctcaga gtcaagcaag tcaacaacgc tacagtacca 480 gaccttatac tcggacgggg accctgagga caactggtga tactgagccg tgccatggtc 540 atgataaaat cggtcataat gttgatatac acgtcatata catctcgttc ttttcaaggg 600 ctatttttcg gcatctgtac agatccttct agcacaccga cctctgctgg atcaatctcc 660 ttgattggca catcatccca ggtagcgaga accatttgct ttccagctaa gagctgattc 720 acattcaaca tagtgetgta cattaceeeg tgaetgaatg geeeetgeet caactetteg 780 ttggaggact ccattgcatc atcgggccca ttgatatcag aaccctttgc cgccggacca 840 gcagatttat atccgcccgt caaagatggg tacggcgcaa aacagcgcaa gtatccggag 900 ccacacatcc ggcctagtga gacgtcaaac tgcgcgccga tgtcgatctg ctctgcaagt ccggaggggt tgactgagag ggcggcaagt atgcgctgcg caccgcgaaa gctcacggcg 1020 tagacgatgg agcagacacc atcggtgatg ggacatgtca tgcgggcatc gtctggtctt 1080 gctagtggtg gagggtcgcg ccagtaaggc agaaaatggc ccggtggcgg aaccgtaggg 1140 tcagcgggcg tgaggtagta tggacggtcg gtgctgcact cgataccaca gtgcccgagc 1200 cagaggatgt cccaatcgtc gccgtagggt gagcttgagc ttccagtggt ttcatcggcc 1260 gcaccttgga gagcgcgtac ggcgatcgca aagctctgaa gctgagattt gatggataca 1320 teccaatetg egtegtette catgatgate geacttgega ggegttettt taggataeta 1380 tgctcccaat tctcagtaga tgatccaata atgtcaagaa tggctgagta ctcaccgttg 1440 cataacgttg aggtgcgaac gtcgagccgc gtactcaact ggtctgtgat cgtaattcca 1500 gttctagttt gggagatcag cacggctacc ttagatatct tcattgcaac tcacataggg 1560 ataagttttg gcatcaattt cttcaggcgt tgtggcatcg ataatctcta tatggaaccc 1620 tctgactgat gagcctagga tgatattgtc gcgcttatca actctgcttg gcaggctgat 1680

ggcaaatata gcgtgagtct gtccagaatt agcataggaa tataagctcc gtgagttaag 1740 atacccccaa tgtctcgttc ctgatcgctt cgaggtgcga gagcgtgcca gaccctgcag 1800 ctacctccga tctggacgag attggcggcc ataatgagaa cgccaggacg ccggcaacga 1860 tgacggcata cagagtcagt cgtgaaaaca gttttcgata cgtaggacta gccatttaac 1920 ctagttgtgg aagcacgata catacaaggt gtgctctgcg ctctgctgat atgtgtaggc 1980 atgtgtaggc tacagctgag acgagctgtg ggatttcgag gcaaggcccc ttcagacctc 2040 ccacaaccac cgggagcgga tgagagccca aagtccacaa gtatgcctag ctgatccaaq 2100 cgctagacca tctagtaagc gccggacagg atgcgatatg cagtactgat ggcagaacgg 2160 caatgagagt tgtgaggtgg catcagtatc cacgaaagga aagatagata gccacggcga 2220 acatttcata agctctataa caataagtga ggacgaaagg aatgttgcta agccccttat 2280 tctggttttc gcgctgttct tcatcgcact aaaggccagt gccgcagtca gcttgcatta 2340 gtgcagaget etegacagge atggetgeaa teagtgteea cagggaateg aetatgtggg 2400 ttcctctaat tagcatatct tgctcttgtt cgagatttgt ttgtttcgta tctcatcctc 2460 atagtettag taaaegaggg agttagaaag gegeaaegte ageeatggge eagtttgaet 2520 cattcaggcc atgtccaccc taatctaatt ctcttttctc tagcatgata catgacggaa 2580 gcaacaagcc aaagcaactg gagggaaaag aaggagagga aacaagaaag aaaaagagga 2640 aagaccgggt tttggaatcg cagtcttacg acccattgcg ctgcgcgc 2688

<210> 882 <211> 1187 <212> DNA

<213> Aspergillus nidulans

<400> 882

gattgaattt ggcccggcga tagtttatta gtcagaaatt gagagagcga taaggaaaag 60
attaaacaaa agattgaagt ctgaatatga caagccggag gaaaggaaaa agaagcgaga 120
gctggggagg ggctgcgagc aacgtgctga agcagcagca gcacagacga cgacggtcga 180
aaacaaatcc acctgaaaaa gcaaaacttt aagctgcgtc aggaaggatg tgcagtgggc 240
agttatgtaa aggagtggaa agctgggcga cccagccaag ggagagcaat gaaacgcggt 300
tgaaaagagc acgagaggga gctagctagc tggtggttgg aatttgctgg ctgcgcttaa 360

teggttegtt ceagegateg geegtgtega tgteatttea teaegaetee aegaeteeat cctccctttc aatcctcaat actactatct attgtaagtg gcctccgacc ctgcggatgt 480 teetggetgt teetggetgt teetgaeeet gaacagaaga attacaagea cagetetttg 540 ctgcattctc atctcaagcg tcatacatat cgccatgata caaggatctc atcaaactct 600 gcgcaaaaac gagatttcga gatcggaatc agagttgcca atagatcggt ttagcgccag 660 gctagtgctc tagttgctgt tattcggcat ccatgtggcg agtctcgtcg ggcagctgat atcatccaat ggctcgaatc actgggcagc tctttgcctc aactgtccct ggtctgctct 780 cgaccgtttt gctgatgttt ccactgctca tgcaaagatt acagcattgc gttgcaccat 840 ttgattctgg ggccatcttt cgatcgagtg gacctggaac gacgtttcaa gggggaaccg 900 agtttgggtc acatgactcg accgggcttt gcccggcgat acgcccaagg tgcaaattac 960 gtagttettg actegteaag acceetggat geagagtega ggttaaatgg atggeteeag 1020 tcatacgcgg tcgaagatca agagctcgtg gctgctcaat gctcaacatt gagattgatt 1080 tgatcatgcg agtctcagtc gtcatgataa acaatacatg gtacggtata agacattcga 1140 ttatcagcaa ggttggaatc aagcttagag aagcaaagtg ccgttct 1187

<210> 883 <211> 6396 <212> DNA

<213> Aspergillus nidulans

<400> 883

60 aaaggtcagt aatcaccttt catctatgca tcgaaaaagg aaagctcacg gtggaatgag atagcctgta tatacgacta gggcctgaat agcgacgccc gtgaggcgag tggcttggcc 120 tttgagtcag catactcaca tcatccacgt acaccgtaac ctcaggcttc tggggttgta 180 cataccaaca tctaaagacg ctgaaaaagc cccgatagtt ctaaagaatg aatacatggt 240 300 cattgtaaga atgaagatga acaagaagtt gatgaagaac tgagatgctg tcctctgtag attggccatg ctactaccgt tagcatagta cacattgaca caaagaggac gtacaagtat 360 acgatcagct cgaacagcgt gacctggata aagattatag gtacatcgac cactacttgg 420 gcgacagcgt aggcagaagg tcgatagaag gagctaaaat cgcagtcagc atgagaagtg 480 tgagtgttga ctttctggtc cttacaaact cttatgcttc agcataacag gacggtgggt

600 aaagacgtcc gtcagttctg cgagagcgag caaagcgttg aaaagcagca caaagaacat cacgcctcct ctagtgaaag tgccagcact atgtctgtta gctctgatat gatatataag 660 ccttcagact tacctggtgt tgggaagatt gtagaacaga cttccgatga tgagcgcctg 720 aaaggtgaga atcgcccact tcccaatgag agttcccttg tcaccataca taatcttgaa 780 ctgtctttcc gtgagaatca taacttgatg gtggaatggc acagtatagt tcttcttcgg 840 egecegeete egageeteet eetgtteate eteatgttee ttgaettete tetegaaate 900 ctctatatcc agcaagttct ctctgtagtc ttcgctgcta cggtacgcac gttgaaaatc 960 ttccgctgag cggggaatac ggtcctccca gcctttcttc acacgccgcg cattaggatc 1020 actgacggac gttaggaagt ccggagttgt ccatcggggt ggacatttaa atccaaggtc 1080 ttcaaagtag gcctttgcac gacctgcggg tccgaaatat gcgcacctcc catcctcgat 1140 cagcagaacc ttgtcgaact gcttgtacag gttttctgag gcttgataga gagccacgag 1200 agtggaggcg tgcgccatgt tggtcaaact tctaagactc tgcacgtact ctgaagctgt 1260 gettgegtea agteetttag tagaattate ceageattgt acaetagett tggtgaceag 1320 ggcttctcca atcgagacac gctttttctc acctcctgat acaccccgga cgatctctcc 1380 accgaccttt gttccaagac agtgctcaat ccagaatagc ttggcaatcg tagacagaaa 1440 ggtttcttga tattccttcc ggctctctcc aggcagccgc gagtctttgt ccggggttcg 1500 tgttttcagc gcgaacatca gagtctctcg caccgaaaga gtagcgtaat gaaggtcgtc 1560 ttcggggtta tacaagactg ttcggtcagt atctgcatta taaccaaaaa agactaaagc 1620 ttaccctctg aacggtattt gtccgccatg atgtcggcat ccgttcctcc ataatgtatc 1680 tccccttcga cacttttata cccagacctc tgattcccaa tggtctttag aaaggtcgag 1740 catecagace etggeettee aagaaceaat agtageteae etggeegeae geageeettt 1800 gacaattacg ccgctctact catcatacta taagaacaca ccgtaaaatc atcaagaata 1860 gtcctcaacg gcgcactgcc cgcacttgtg ccctttctac ccctcgtaag aagcccctta 1920 atcaacctcg gcagccccag aaagatatcc gcgtttgtcg gctggatggc agcgcccaac 1980 ccaacgccct tgacagtcaa gtttttccat acaacacctt gatgcctcgt ctgctcttcg 2040 tetgaattgg cetteegete aeggeegaae ateegegaga ceageetgge taceteetea 2100 ttatetteeg accegeeetg gtatgtggag etegttegat gegacagege gegggtgate 2160

tcatcgtcag tgagcggcct gctgccagcg gtacctctgc gggtgagcgt ctgattgcga 2220 ctgcgggtgg actggtttgt ctgtataggt gcgaacttct cgctgtcagg attggacgag 2280 gggatcgacg ctgtatctga ggtggacctc gattctgcgg gggagcgcag gtattgttca 2340 gctggagagt tcgttagtgg gccgccagtg gaggggtcct tttccatggc ggcaggaggc 2400 attagaatgc aaacggtcaa attcaatact aaaacccgag agaaatggtc tagagtaaag 2460 gacagagatc gatagatata tacaggtatg atatcacaga ggacacagac aagaaaatcg 2520 catgttacca gtatettaeg teegggetga ttegaeegge etagaagaae gaettaeteg 2580 cgggcttcca tcataagtct gcatagacac cagttaacag ccagcataaa gatggacaac 2640 ggaccaccgc ggctccgaag ctactgagag cttgttcgga cggaagtcga gtgagcttcc 2700 gaatgtggtc atcatgaagt catcacacca cggctgcttt gcgatgctgc gatctggcaa 2760 tcactgcttc gcattctcga tctgatcggg ctttgaggcc ctaaaacagg gcgatgagga 2820 ttggccaaga cagattgtgc atattcaagc atatcaaagc tgtcaatgtt gagcataccc 2880 tcactgtgat gatatgggcc gcttctggag agcccctggg ccggccgatg aattgatctg 2940 aatcaaatgc aggtatcata aggtttcaaa aatctgtaat aactctagac tcaggtcatt 3000 catcaagaat tttggtttta catatatata tatacttcgc aactcagtgt tgttgttctg 3060 ggttcctttc gttcaggcca gaatgcggat acattgcgga gaaagtcctg gtaagcttca 3120 tctataaaga caccttacct tgtacaagcg actcgtcgag aatcaaggaa gtatctttat 3180 tgtttccttt ttttatttta tctttatttt tatcattttt gagcttcgga tcaagttgaa 3240 ttagttaaat tagcgtcgag ctatgagagc gactgttata cctgcgatag tactccctcc 3300 cagtatacac ctcggcaaac cgatcgcata ttatcttttc atcccactgc catcttaagt 3360 acgogtgtoc atggcootca otttatoott tgotcaatgo tootatotgt actoogtact 3420 cttcctatcc ataccctgaa tccaccgtca gccctagaga tggtagttgg aaaatgcgga 3480 ggctgggacc cgcccaggta gcggacaaac agcttaagcc caatccagcc aatcagagcc 3540 cgagattcat tgtatgtctc gaagcccagc caccccgcca aaacaactct tctatcacgc 3600 cagttgcagc agggaggaaa tacacatggc tggccacacc gtggcctagc accqttcgat 3660 tegggeeece ttaaatetea getaaatete ageeaggeeg cateeacatt ettetett 3720 ctatececte ecetecettg tetetectee caagetatae teegtettgg tetaaceett 3780

cagtgtacca cggagatagt tcgatttgat cattgtgtgg agaagtcctt gcgaggactg 3840 actectacce etecteagae tagttettgg taacatecta ectattetta teatetttat 3900 tettatteta taeggetega ttegattegg teccegtece gaagaegaea aegaeegeea 3960 tgcagcgaaa catgaccgtc gcggtcatcc tgatcgtgct cttcatcatt cttatcatca 4020 teggatteat gatetgggea caccageace aagteteatt etttgegagg aggaaggeeg 4080 ttgatgagga gagcaccgag ggcggttaat ttctacacac cgtcgtatat cgtacgattt 4140 tatcgacact tcatatcgtt cacactacgt tacgctacgt tacgctacat tacgctacat 4200 tacgcttcga ttaatgcttc tagactacgc ctaccgatcc ttcgtggtta tactctataa 4260 acceaetctg cacctatata ttgatgeaca atttgtgget ettaetetat ategacatag 4320 cagoctaacg acccaacgac ctegectete egtgteetet ecaatggact teaaccaegt 4380 ttgcacatgc gattggcacc tcgtgcacat acccaaaacg acttgcatat gattgatgac 4440 atgcatttgt ctttcttgtt tattgttcct gacttggtga ctcgggttcg ctctatatgg 4500 cgttttgggt gtttgatcta tcttgtgttt acgaaattac tgcccagatc atgtgcgacg 4560 aaattaqatg taaaataccg tctcatggaa tcgaatgagt ttatgataca cgcacagtca 4620 ttaattctca ctcaacccag aatcttcagg cctcctctag tctttcctgg cttcttgatt 4680 ccatcgtgct tcaccttagc gccctggttg ccaccagaac caccgccctt gccagcattt 4740 ttcttattgt tctttgtatt ggaaacgggc cggacctcgg tagttgcgcg tcggaggagg 4800 acaggatgcg atccaatata cttgccctgc atttctcttg cagctttgaa gtagtcatcg 4860 ccgtcgctga aactaacgaa cccgtaacct ttgctcttct gcgtgcgttt gtcgcggata 4920 acgcgcgctt tctgaacgga tgtgtatttc gagaatgcct taaacaaaga atcatcggtg 4980 acctegeeg caaggttace gacaaaaaga eggaaatggg eeggateeca etegageagg 5040 gtcgggtcgg tccaggtctg gccaccgcca gagcggacga cggtcttttg tgactcgact 5100 cctgcggcgg gggttgtaga ggtcggcgta gtaccggacg aggtatatac agtagttgcg 5160 ccaggtgtgc cggtactccc ttctcgacgg gcggcgcct tactcatggt agatgcatca 5220 teettactgg cataggeggt etgecattge gegatttgeg ettetgtete ggegtegagg 5280 ccagagtttc gtccgcggct cgggtcgctg cccgacggcg cgaaggggtt ctgaatgtga 5340 gggaccgtag gaccgtatgt cgtacccgca ttactgtact gcgcggcacc ataatatgaa 5400

gggcccgctt gatatgacgg ttgcggttgc gagtagtagt tgccgtagct ggtgcttqtt 5460 ggagtggaat aaccgcttga cgcagtgggc gcagccgaaa cgaccggact gctggtacqg 5520 tagggctgtt gagaggctac ggaacgaggc gcaaacgcca tagcagcgtt gaagcccggc 5580 cgcgagcccc cgccatatcc gctgttcgca tattgtgaat ttgtgtttgc tgattgaggt 5640 ggtcgcggag ggagcgacga aggttggtga cctggaggtg gcgggaagga catgatgaac 5700 ggagagtttt atagaaggcg atagatgatg tgaacgccgc gtagacacgt accttcaggg 5760 cttgactgac gcagcagtca tacgccagac gtcacqcctg agaagtcccg aatccggatt 5820 gaagaaagag gcggtttaga atctgggggg cggaagaata gatgcaaaag cctgtaaaat 5880 tcaatgagct atgtctaacg agccgacagc cggtaggcag ggtctctaag caagaatttg 5940 cagcgaaatg ttgttcagac gcttgggaag gcggaacagg tccagtcgag cttcaaagtt 6000 gaatagagac gggctgggca gcggaaaaca cgcacttggc tttgtcgaat cccgtagaac 6060 tagcaggcag cctagagcgg aatgacacgt gaccgggttg ttctagccac agtttggtga 6120 ctaageeggt tateggaget egaategget tagtetgeet agegtggagg geacaegagg 6180 ctgtgactgc acccccactc taaacccttt ttggatggaa tgcagtagcc gggttcatcg 6240 gcggttatca agggattatt tctccaggca tgtcctcgga gacggattag agtgtaatcc 6300 aggggttctc cgcggcggat tagtttaata aagtcataat ttatccgttt ccqcqttatc 6360 ggacggctct ggtgagcata gagcgcggtg aagcat 6396

<210> 884 <211> 1346

-212\ DNA

<213> Aspergillus nidulans

<400> 884

tetettgggt tegegageca tgeceaceta tegggeetag ateaggtaga teceacegeg 60
agececagae etcaacgatg tageceetge cettgeegge ateaceggea teegeteeag 120
ageateeget gtggeeataa ttgggateet ettteeecag eegtacagta aacegeacee 180
eeegeggeae aacacaaate tegeegget gaacaaacaa eateeecage tetgtetgga 240
tateeaaaet teeeaattga ggtacaatta ggaagteeee gteegtattg eagaaagete 300
tatggteeat ateegegttg ateatgaaga egtacagtge taceeetteg egeaagtteg 360

ggtcgccgct gccaccgagc gtatgcaagc cgtcaacaaa gtcaattttc ccttccttag taacatcggg cagagggaac ggcgcccatt cgccttgaga agggagtgtg catagccgct 480 ggttcagggt gagaaggcta ttttcgatgt gggatttatg ctcaatatcc gtttcgtacc 540 cgtctatacc acgccatcag cgcttaatca gctccaaaca agcgcgaagt cagagtggga 600 gggcttacca tgcgcagcag ccggtctaac acggtacata taagtgctat agttctctct 660 cctcggcgcc gtgaatgccg agtacgtgat cccctccgta tagagcccaa accgcggctc 720 ctgcgggtta ttctgtcctg ctgggagcgt gccgggaatc acttcagatt gatgccggtt 780 gccaaagccg ggtgcgtagc tgtaggggtc gtttggccga gttggactgc gggtcatggt 840 gtcggtgtag tggaagacct tgcgcaagtc agagatgggg tgtcggggga tgggagaggg 900 ctcgcttgag gttgacatgg tggcggatgt agatggaqta qagttggatc tgattgactg gttggaatta aagttgaggt tgatgttcag ttcagagtga gggaggttac cgtggctgga 1020 gtgttatgta aaagtgttcc tggctcagtg tatggaagta gatataagat agagataagt 1080 gcctgttaga ggtcatggaa agtcactgac ctctctacaa gcccaaattt tatattcgct 1140 ccctcattct ccgcgctctg ctgctaattt ggatgtggag catggcttct ccattggatg 1200 gtgcccatag agcttcaatc taaatggcat tcaaccgccc tccagaggcg gatagcggag 1260 cctgtccatg tataataata cgtggattga tctcatgatg taaagctccc ctgaacctgg 1320 aaggtgtttg cctcatataa gagcta 1346

<210> 885 <211> 1585

<212> DNA

<213> Aspergillus nidulans

<400> 885

tccagcctct tccaaggcta gcaaaagttc ctgaggcgtg aggctgtcat acgtcccgaa 60

ttcttcatca taaacaccag ttcgagtaat cagatagtga tagtttatcc atccgcttct 120

gaaggtcaaa tccggcccct atgcatcctg tttgtctcta acctgctcat ttcaacatct 180

aaaattgtgt tagactgtct caacaccaat gtcaaccaag tgttatagcg taacttagtg 240

ccagccaccc tttctacata tatctcacct caaccttcac ttgcctccgc cccgactacg 300

ccttcgtcac ttctcaacat cgatactggt tgctatatac acattctgcc tttgttacgt 360

ctacaagttg ccatctttaa tgccttccct tatttctgta ccccagtcca ccggtctcca tggcctcgct acgttacaat ctcgtcgcca caagtacgcc ttccacattg cggtcgccct 480 tctcaaccct cctctctca acaagtatac aaactaacga agtccgcaga aagcttcgtg 540 600 aaagcatcag gggcgttagt acgttaaccc tgtcctcagc ttgaacttct gacgaagctt tctcccgtca ccttcaagag aaacgccgaa gccccagcag agcagccagc taatacttct 660 ctattcaccc agcacgccca gcgatccggt atgacgccag ccctcggcag tgaggtagat 720 cctaacgcca gagatgtaac aagccgtctc gcacgtcgag gtggtgtgta caggattaag 780 aatgagatet aegatgagat eaggattgtt ttgaaggaaa ggettgegga ggtatgtatg 840 catatttttc ttcttcacct gatctgggga agagtgcagt ttgtgttggt gtggctagag 900 gcttcgcatc ctcttaggtg tagtcctctc tcggtaaata tggctaacaa gaataagaca 960 ctgaagcagg tctgcctcgt catggaatcg ggaacgatac cttcttctga aagaaaggta 1020 agtcggagct ccacttcctt ggcctcgatt gaaaactaaa ggtgacattg ttttctttat 1080 agettgteae gacaegagat gtgagtteet gategageee etaacateta getegataee 1140 tttccagctt aattgggctc tgtcggattg aacagacgct gatttgttac tcgtaatatt 1200 tctaaacagg tcgtctatgc attgaagaga gtacgtattg tccttcttgc ttttgcacatt 1260 catgtgtttg ctgtatgttt tactgttact accatcagat gctaacaaca catccctttg 1320 gttaaagatg ggtcaaacga tctatggatt cgacagagta tttaggtcac cagaatcgcg 1380 ctaggtctat catagatctc gtatgtacag ctattagttg cacagaattc aatgtatttg 1440 cagtaatagg aagtttggtg aatgtgttta accgtagtac tccgggaccg gcgtgtgtct 1500 gtgtgctttc atcattcggc tctatgggca ccagggcaac ccagtgcgat atcaggcatt 1560 1585 gttcttcatt aagcagggat ctgct

<210> 886

<211> 6343

<212> DNA

<213> Aspergillus nidulans

<400> 886

atccagcaaa aactcctcaa catcataaca ccccgctcaa tccttgttgg ccattctcta 60 aactccgatc ttaacgcgct caaactcacc caccctttca tcgtcgacac tgtatttcta 120

tatecteate egegtggeee acceeteege geaageetaa agtggetaae eeagaaatat ctgggcaaag aaattcagaa aggcacaaca ggtcacgact ctatcgagga cgcccgcgcc 300 gtcctcgaac tcgtcaagca gaagtgcgaa aagggcgagc agtggggcac aagcgatgct tcaaatgaga gtattttcaa acgcttgagc cgccatagcg caccgggtaa acccaatgtc 360 gcagctggag ggacaggtcg cactggcgcc gtcgttgact ggggcaatcc tgagcgcggc ctgggtgcac aagcgactgt cgcgatcgga tgcagcgacg acgaagccgt ggtgaaaggc atccaageeg cegteaaegg egaegaaage aageegteta teeeeggegg tggtgtagat 540 tttacttggg cacgaatgcg cgaactcgaa atctaccgtg gctggtgcaa ccgtattccc 600 gatcogagca acgogaatac atcoacatta attgogttog attoctotto otcotcatca 660 gagtcaagaa cactaccaac tgtcgtctcg caaaccgtct cccgcatcaa agaggtgtac 720 780 gatgeeetee cageatgeae eetgtttgte gtgtaetegg geacaggaga eeegagagaa gtgagcagac tgcaggcaat gcataagatc tttcgcgacg agtatcagtc caaaaagcca 840 tgggatgaat tgagtgttaa atggacagat acggaggagc aggcgctgaa gaaggcctgt gaaagggcga gggagggatg tgcgttcatg tgtgttaagt aacgatggca tgtcatgtgc gcatagacat ccacctgtat ctactttgcc ctctctatgg acacgttttt tgggtagcag 1080 cataaacgag tacaaagcat ataccagaac atggcgcgca aagctagcca atatgtttca 1140 tcagtcgagt actataatac atcgtaaata gaagtaaatg tggataatat ctcaaggcta 1200 gaataggcta tgccagggag ggttggctac cgggcctcct ccgtatccat agcttcttcg 1260 cgctgcatag ccagtttgac catgttatca cgcgcagcgg cctgcgcctt tcgcttttcg 1320 ttcatttcgg cttttgttct cttgccctca tcagctttaa gtctggtaaa ttctagttcg 1380 gcattttcct tgcctagttg cacagctaat tgcgtagatg gctctgagga tgtggttgag 1440 tettgetgtg atttgtetge atttteegtt gacaactggt ttettgtget eagggaeget 1500 gcccgtgatc ggctgcgtag tctgtgcgaa cgggctgaga ggtcttccat aggtttttgc 1560 tegatattgg gegtagettg gggatttttg etgetgetge ettgttegte tggaagtett 1620 ggtcctgggt tctgcgttga gtctgcttgg ctgagcgatt ttcgggacgg tcggccctt 1680 ggccttttgt tggaaaccga gacttcgctt gagagtcgag gccgtttcac agcaggttcg 1740

tcggaaggaa gggactgtgg cgtttggtat gtcgagttgt caactccgat ctgtaatcga 1800 ggagatgatt catgaactgg ttctctggta gtttcatggt ctttcagcgg aatcttcaca 1860 gagggtatge tegaetetgt cagagagaae eeggetaaat tgtettegag gaegteetee 1920 tcatcaaaag agtctgaggc tggtctttcg cgaacaccat tgtagtgctc tgggaaggga 1980 aacggccgct ttctgctacc ctgaagaagt cctggggatc tgacttctgg aagaggtgcc 2040 tcaacgacta aggaatgttg ggtctgcctt gccgtgtgct cttccacaaa gcgattacgg 2100 agetttaatg ceteaatete eagttteaae tteteaatet eateegeett egattttagt 2160 teetteaaca etgiggigae caigitgaaa teigtatieg eeaagietig tiegtitaag 2220 aaacggtttg gtccatttag ctcaatgcgc atggcggtaa atgcattctt aagctcatgc 2280 atcgtatcgt gtaaagtact gactgagctg gagatatggt cgaggctttg accttgctgc 2340 tggatatggt gttccacgga gatttcgcgg ttgtcattcg agcccactga gattagaggt 2400 cctggacgag aagatggccc atccgccccg aaaccgattg ctttgggttt ggggaataga 2460 agatettega gaaegeeage eeettettta aataeggget egaeegggeg catagtgaeg 2520 atttcgagca aggagacttt cggcagcttc cagaaaatat tcggactaaa caatcagcct 2580 cagcccatac agaaataacc tcctgttact gcattctcaa ctcacccatt gtccagagcg 2640 catagagege egagtttetg atggeacaat ttgeaceega teteetgtae aatgegteea 2700 cgtataaggc tcaactcgga cgactgaggt atctgcttct tttcggtaga gattgagatc 2760 cgctgaagtt ggcagctcaa ccatccagag acaacggaat atgagttcga cagcttcacc 2820 cattcgttct caaggaccgc cagagagctc agacatcggg agcactggca caaaacggct 2880 gggcgagtaa atttggagag gtctatggct tcggagttca tgttgaagca aaagaagatc 2940 gacgatgagt tgcgcgtcac ctattctcga agacatgaga acactggcag gtaagatgtg 3000 aagattgeet teaatteeae gagggagtet ggaetgetga eteageteee caeettteeg 3060 gtttcgacct atcgataagc ttagatgctt actggactgc ttgtaactca ttgtccactt 3120 caagatgccg ctaacctaaa gaagtaatcc ttttgcctga catcaaccaa agttagtatt 3180 cctggccggt gtatttgata tacttcggca attgccagtg ggctttatag tttgcggaga 3240 agacagttgc catatgcttg atgatggtta ctacgtgttt cataagaagg ggcaggcaat 3300 aggcacaggc tcataagcct acatcggaga acctccggcg ttacgtcgca gattaagccg 3360

ggattacccc acatcctgag gtgggtacgg cctttttgtg ttcaacggaa cttcttgatt 3420 caacctacga tttcttccct ttcccaaaga gaaatacatc ttaacctgaa cacgaatgaa 3480 acggttcgtc aggcccgtgc ttcaatcctc acgctttttc gagccagttg tctccccatt 3540 acaagccagg cgtggattgc gactcgttac gaacatggcg acctcaaatg cggctaatgg 3600 caagcagaca acatggcatg gggcgggcgc agccgagttc gatctgcgaa gtgagttgcc 3660 tgtaggatta ttettttatg tatatetagt etaaaegeet eggaattagg tgataetatg 3720 accaageeea egeegteeat gettgaageg atetgteaga caacaeteet agaegatgtt 3780 ttcgaggagg accccgtcac gaacgaactg caaaactatg ttgctaagcg gaccaaccac 3840 gaggetgege tattggttat gtegggtaea atgggeaaee aggtegeeat tegeaeaeae 3900 ctgaccgagc ctccatactc tgtcgtttgc gattaccgtt cccacattat ctgctatgaa 3960 gcggggggtg tcagcgcatg gactggggct acggtgatcc cggtcattcc caagaataac 4020 acctatetta cactegagga tgtteaaaag aaagtggtaa teageaaaga tgteeacaeg 4080 tgccccacaa agttgatcag cctcgaaaac acattagacg gaatgatcat gccgttagag 4140 gaagctcgca ggattacaga atgggcgcac gaaaatggga tcaaggtaca cctcgacggt 4200 gctaggttgt gggaagccgt tgtttccggg gcaggcagct tgcccgaata cagcagcctc 4260 ttcgacagta tcagtctatg cttttcgaaa ggcttaggcg ctcccattgg tagcatcata 4320 gtcggctcgg aacttttcat aaagaaggcg cgttggttcc gcaagtcaat tggaggaggc 4380 gcccgccaaa ccggtgtgct agctgcagcc gcaagggttg cccttgatga gacttttggq 4440 ttagatccct ccggcaagga tgggaagctg cgagagaccc atatcaaggc gaagcgcgtc 4500 gcggacatgt ggacgaagcg tggaggaaaa ctagcctatc cggtccaaac taatatggta 4560 tggttggata ctgaggcatc cggccttgga ccgaatgacc tagcagaaac cggaaaagag 4620 aaaggattga agctcctggg ccacaggatt gttatccatt atcgtaaggc cctagctctc 4680 aaggttcaat tcaagcaagc tctaactcct tgtagaggta tcagaagatg caatcgaccg 4740 ccttgagcag gtgtttgact tggtattgac aggccagcac caacaaagta ctgacaccag 4800 caagccttat ggtagccgat aattctggtc cgctctcact ctctgaaaaa cttagcaaag 4860 atgctgtgca ataaaatatc aatagtctaa agaaaaaaaa tgtccctatt actagaagta 4920 ggctgattta tcgctatcgc tattattaag tgtacgaagc acacaatgca gtagccttgc 4980

gaaagtaaaa aagacatgga acgggaaaac ctccctccgc tcgagtcaca aacaaagaat 5040 gcacgatcca tgggtgactc ccgggctgag ccttaaaagc ccattatact accaatgtta 5100 ttggttcgat catatcattg ttgcctcagg aaagtaatta atgcctgatt tctgccttgg 5160 acgttcccca agttcataaa gctgagccat ctcccgcacc ttcgctgccg ttcctcggac 5220 gacgagtcgg cgattggaag acttgaaccg gtggttacct agtctcttgt tcgttcccat 5280 tgttaaatcc gcctgtttaa caaacccatt atcgcgaaca gcccaactgg ttgttttgaa 5340 tggctgaggc ggatttgtcc actgtgtacg ttcattttcc aacttgttga tcacqcagca 5400 acatacaage taaegtgeaa egaetegetg cagacataat egettgeete ettaaataee 5460 tgcgtacaat ctcctcgttg cttccttgtt tattggcctc tcgccgcaac caaaaaaaat 5520 cetgttcctc ttagctggta tcgccattgt tggatgaatc gagagtacaa agcqccqttq 5580 gatttcctgg acaaagccac agtcatatcc aactcggaca ttttgcctct acttttgaca 5640 tactccgttt tggtcgtgtg tcgtgttctt aatacactga ttcagttttt cgacttacgt 5700 gaagactgcc ttcaaggagg atccagtttc gaggtcaaca ttcgaggtta atataccgcc 5760 aacaattatc cgttttgctt tatattctca aggtaaagtg accgaccgtt aggcatcagg 5820 gcgttggtcg ggatttgtat ctagagcccc aggactgatg cgtggtcaga tattcgatat 5880 ggaccacctc tgaagcagca acaacaggct taactcagag cttcccatat gcaagaagct 5940 cttcgtcttg gactattgct taggtgtatt ttgtcctctt cgcaccaaaa acctcggcag 6000 gatggaggca acccaagaat caactcagcc atacacggac cctcgacgcg gcgggcttaa 6060 tgcttctgga ttacttgaag aagacttgtc agacgtcatt tgtatcctcc accctagctc 6120 ccctcaggct ctcgaggcgg tggcggctac agctcgtgtc gcgccctggc atattttgca 6180 gagagacgat ctggagtatg aagtccctag cactgcggcc ctaqacattq cccttaqact 6240 gtcttccaat gtgatggacc caagccgggg attctccttt gggcgtacca tcggccgttc 6300 cgatatcctc ctctgtgcag acaatggatc caagcgtatc tcc 6343

<210> 887 <211> 3759 <212> DNA <213> Aspergillus nidulans

<400> 887

ggaacagett egtaetgget etgetatggt gtegagaaga attttgegee tttgaegaag 60 cagtggcgga ttccgagttg gttggcagct tgtgccaagt gggctgatgt tcatcggcct gtggttcctg aaggagtcgc cccgctggtt gatgaagcag ggtcgccgcg aggaggcaac 180 ggcgtcgctc gctttcacgc ggcgcgctga tccaaacagc gacgaggtgc agcaggaact 240 300 cgaggtcctg ctgccgggga acaggttgcg attcctcaat gcattcttga tcatgttctg 360 gcagcagttc teeggcacga acagtategg gtactaegeg eegcagetgt teeagactat 420 cggagtggct tccaccgaca ccagtctttt caccacgggt atctatggag tcgtcaaggt 480 cgtttccaca ggtcttttcc ttcttatcgg aattgaccgg ttcggtcgta agtggtcttt 540 ggtcggtgga ggttgggcca tggccgtctt tatgttcatt ctgggtgcag tcctggtttc 600 atacccccct gtgaacactg acacaatctc caatgcaagc attgcaatga tcgtaatgat 660 ctacetttae gttateaggt atgtgattat cetttteece etgaategtg ateageeeta 720 agctaactat gacatageta etcegeetee tggggteeea tecegtgggt atacattteg 780 gaaatcttcc caacgcgcct gcgggcctat ggtgtcggca tgggctcggc cacccagtgg 840 ctgttcaact ttgttgtaac aaagttcacc ccctctgcca ttagcaacat tggctggcgc 900 acgttcatta tgtttggtgt cttctgcttt gctatgggct tgtgggtgtg catctttatc aaagagacca agggaaagag gcttgaggat atggacgaca tctttggggg aaagaccgtc 1020 gagcagatgc agaaagatat cgagcaggca gatgttgagg agcagacaga ggtggaaaag 1080 acccagacaa gacatgaaga gcaggtggtt cgttaactga cagcttgatt gctcctatga 1140 tatggttaag agtccgccct ctactgactg tggttgagtg tccttgcact tgctttatcc 1200 cggttccggg agatctgcca gatatggtgg gctctctggc attgtgtccg tgatagatac 1260 agaaatagtt acacaggtca gagaaggcat acgaattggc cagagacgga tagacaatgc 1320 tatcaacctg atgeteeact aaagaaaagt tactgactge gtgaacttge egggetgatg 1380 caattgcagg tgtagaggtg agaatcggcc agatctggcg ctggacagga gtagacggcc 1440 gtaccggcca caagagaacc tcagggtgta tttttgtgaa ggctaaaagt tgaqatcgcc 1500 cccgcacaaa tgttccttga tgcggtgact cgtaatagaa tggacccttc cttattcgta 1560 gcaacggcca atggctgctg ggttgttggg ctcatccgac ccattacaga tacacaccat 1620

gtgcaaagag ctttatttag ttcacgcttg taatcatact gaccagtcgc agctctcaga 1680 aagtageget gecaatteet caagataete ettateetea teategaaae eegaeggete 1740 ggcgcagtct atatcaataa tcgcgaccgt ctgcaatggt cagtgccctt cccaacggta 1800 tggaataacc aacttacctc gccgcccgcc agaatcggca ccacaatttc acttcgacta 1860 ctcgcatcac aagcaatgtg cccggggaac tccagcacat cgggaacaac gaccgtctcg 1920 cycttcyccy ccyccyccc ycacacyccy cyaccaaacc gyatctccty ycaayctyga 1980 cggccctgga agggaccgag ccagagcgtt tctttcacac gagcggcttc tqtcqattca 2040 gctgtctctt tggaagggaa ttgatcttgg cggatgtaga aaccagccca attcacggag 2100 gaggaggggg ccggaagcgc ggcgtaggcg tgccagagga gggaggcgac attggagaag 2160 ttgctgacaa tgctaatcaa tatcctgact tgaccatata gatagtccaa gggaagggtg 2220 ttttaactac agtccacgta cctgacccag ttgcgctgtc ctgtcacaag gcccttggct 2280 tgctgaatga cctgcgcata aatctcggct ttagagccag atccgaagta agaggagtct 2340 gcgtggggct tgggatgtca gcattgaaga ccgtcacgtc ggctcatggg ctagtatacc 2400. atgttcaatt agcttgaccg gtgaggatcg cagcttgtag aggatagaat cgcagtaaaa 2460 aattatggcg ataagaaagt ggggtgtact gtacggtgcg gggagcttta cagtacaaga 2520 caacaagagt atagacgtgg acagcgagct acttacccga ccagacatcc tctttcttaa 2580 atatttgcct ggaatgttct tctcatactg agccgcaatt ccgccatttc aatcgaataa 2640 gatcgatctc caaaatctat cctatcgtcc ctcgtcactc ggctcgaact gcttatttgg 2700 gttatcgcga taagataaac ctgcagttgg agctgttgga gtcttggagc tatttcacgc 2760 tctatttaaa cagcttgcta acattgcttt cttcctagac agatttcgtc atccaaatca 2820 . atcoccgtcg ttgaaaatgg acttcctcgc cgtaggactt gtctccatcc tctccccaqt 2880 cctcgcaagg gaaattacct ttcctcccat tgctgccatc caatcagacc aattcatcct 2940 cggtcagcat gagaagaata tcgacatcgt cagcggtagc caattttctg gcttaaccac 3000 gttcgcccat atcccctatg ttaactgttt cattgacagc gaagccgaat caacaccgta 3060 tgatategee atgettgggg caccattega caeggtaagt catggaaceg gtacegteca 3120 tgttgctgcg gcctgcttac gtcggttgtg cagggagtca cggctcgccc gggcgcaaga 3180 tacggacccg gaggtatccg actcggctcg cgccgcatcc aaggttggaa catctacact 3240

gggcagaacg tctttgagag ttgggcaaag ctcgtggatt gtggggatgc gccgttaacg 3300 tggttggaca atacggttgc attgaagcag cttgatcttg cacataaggt actttcattt 3360 tcactttctg tcttttccgg gaatgcgagg ctgaggttat ggcaggtcat ctcttcgcgt 3420 gcaacgaaca gtacggagaa tggccgcaca ccgcgtattg ttaccctggg aggggaccat 3480 acgacgacgt tgtcggcatt gaggtcgacg tataagcatt ttgggccggt gtcggtgatc 3540 cactttgata gtcatattgg taagcttctt ctgagtatgg agcatccgtt gctgattgt 3600 gtagatacgt gggaacctga ggtactaggt aagctatctt aactcgaaat ggattgagcg 3660 gcattgatag cgatatcaat aaactaggcg gcgggatctc taatatgcgt aggtgcgcat 3720 tctattattc agcgctaaac tcattgacag tgcgttcat

<210> 888 <211> 3699 <212> DNA

<213> Aspergillus nidulans

<400> 888

aatagttata ggaaaaagaa tccaaaataa cttagaaatc aaaaattcat tacgacaagg 60 acctaaaggg taccggcccg tttacattta ggagatcgaa aagaaaaatt agtggataca tgtcaaaata tcttcaaacg ggcctaaaat ttaaaaacgc ccaaaagttt tggtggggcc 180 cccattgtaa tcttgtaggg ggttttgggt tccttaaaac gtcgccgggc caatccaatt 300 ttgccagttt ggggaaaaat ttgtgggtaa aacggtgggg cgtcttcccg taagccgaaa aaatgctaga gaatctgtgt attacaatgg tcgaaatctt cagtgttcgg gcaatgtcac 360 aggcatgctg ccctcctgca cctcccaaga ccgccaaact atggctcgct gtgaatgtta 420 gagagagggt ttgtatttat gagtgattcc taggttaata cgtaccgata tcatatcctt 480 540 tgccctccgt caacgcccgg attggccgac acatggcctc attggcaaca ttcaagaaac 600 cgcaggccac ctcttctgga gtcagagctt tgccggtatc tctgttgatc tccgctgtca aagcgacgaa cttcttcttc acaatgtcca catcgagcgg ctgatcctct gtctcgccga 660 aaatctttgg gaacaagtct gggatcagcc ggcctaggaa gaggtttgca tcagtcaccg 720 ttagagggcc accettgcga taacatgcag ggccaggatg cgacgaggcg ctttcaggac 780 cgacgacaaa gaggccgctc cgccaaaata ggatcgaacc gccgccggct gcgacggtgt

tgatatcgag ctgaggactc tgaatcgtga ttccggcagt gttgctctca aagacatgct cgaatgtgcc cccgtaccgt gagacgtcag tggaagtgcc acccatatca aagcccacaa 960 ccggagtgcc agagctggca tcgtacgagg tccgagcaaa gccaacgact cctcctacgg 1020 gcagttagca ctgaacagcc cagatgaatt tgacgagtct cacctgctgg tccactgagg 1080 atgcccctta gcccactgaa ccggtcatgg ctcacgagac caccatcaga ctgcatgaag 1140 tcacagcaca cgccgtccag gtttccgcct tcaaagccct ttgcgaaccc ggtcaaatag 1200 gtcttgatct caggcgtgag gtatgcgtcc gccgacgagg aactcccccg gggcaccatc 1260 ttgatcattt ttgcagcgac gccagaggag agggatacat gcttgaaccc ctcgtcaagc 1320 gctagcctct cgacccgatt ctcatggtga ggaaatacat gtgagtgggt gaagcagacg 1380 gcgagggtat cgaacccctg cgcgcggagc tctctcagtg tttgtcggac agtggtctcg 1440 tccagtggct ttagaatacg gatcatgtcg ccacttgatg acttgacgag aacacccggt 1500 attcctttc tcgaggcaaa gagacccgct gcatcttcgt cgaatccctc gatcgtgaca 1560 cgttcgtcaa cctcccttac ctccgagtag agcacctctg gcttgacgat attcaggtcg 1620 aacagccggg gccgcgactg gtacccaatc tccaacaaat ctcggaaccc cttcgtgacg 1680 aggaaggcat gttttgtccc ttttcgctcg aggagcgcgt tcgtcgcgac tgttgtaccc 1740 atgcggatcg actctagctc gcctttcggg aggggaacgc cgcgggggat ctcttgaccg 1800 tagtagagcg agagaacccg tcgaatgcct tgatcaggca gcgtcacgag ctggtgagat 1860 ggcggtttgg gaccctcgag tgacatacct tcagtcgggg catcggcgta attagccgga 1920 tccactgaaa gcagcttcaa aacaacgtct ggctgccctg gtaagcttgc ccagacatcg 1980 gtgaatgtgc cgccgcggtc tgtgaatgtg agccttggtg tcttgttctc tctaggatct 2040 ggagtttggt ggttcttacc aatcgcgatg cgaacaccgc cgggggcgcg taatggaacg 2100 gtcatggtga tggacgagag agcggagttg atggaactgt atcttgttct ttgcgggaat 2160 tcaagcctac tttataacct agtagcatta cacccagtgc ccctcaggag ctggaattgg 2220 aaggtegata eggetggaae tgggtegaee atggteatet geatecatee atetecagta 2280 teccaattga tgagtataca aaggeeggee cageetggaa catgeetete etetggatge 2340 ttcctccatt ctggcctgga aattgggaag gtcgatacgg ctttagcttc aatttagctt 2400 caatcttgtc ccgttagcca ccaatgggct actgcatcgg gcacctagca gtgggtcttc 2460

cccagatcct ttatcggagt tggagtaagc cacaaggctc ctaagagtct gctgagggta 2520 ggtatgctat ctagatacgg ggagacgccg gttgagcaga tgggtataaa tgctggtgac 2580 ggctcgatat ccgtcgagga aatcaattat ccatcttcac ttcattccac atggcagacc 2640 tagcaaagac cettgetgtt gaaacaccag acacagagaa gcaagatgte tecacggcaa 2700 tggacgaggc tgcccagtac ctggcccaca gtcgcggctt cgagccgctg tctcaaqagq 2760 aagagaagca gatgatacgc aagatggact ggatccttct ccccatggta cctctccaaa 2820 acctettgat gtttegetgg acceegeace getaatagae geagetgtte atgaeegeta 2880 ctctgggagc agtagacaag gtcgccatca gcacggcggc catctacggc ctaaaggacg 2940 accttcatct cgtcggccag cagtactcgt gggctggttc gatcttgtca attggagtgc 3000 gtcttaccct aggctgtcca ttcgctctac ttttacagct ggctaagaag agtaggcgat 3060 tgtcggaatg tggccgtcaa cgtatcttgt ccaccgatta ccgtcggcaa agtacctctc 3120 tgcatgctcg gccggatggt ctatcctggc ccttctcatg ccggtctctc ggaactggag 3180 tgggctgatg gctctgcgat tctttatggg tacttctctt tcactcctcc aagccacgga 3240 gatgagatga cgagacgtca gatgctaata gtatccactg acaaggctgc ctcgaagcga 3300 tcatcgtccc ctccatctcg ctcatcattg ccggattcta cacgaaatct gagcaaccac 3360 cgcgtaatgc cctagttttt gcggctgcga gctcgatcat caacggtttc ctctcatggg 3420 ctgttggaca cattccgtcc agtgcaccgc tggcaatctg gcaatacctg ttcctaatta 3480 ccggctccgt gtcaacgctc tggtcaatct tcgtattcgt cttcctgccc gactccccca 3540 tgaacgcctt tttcttgaac gagagagagc ggtatcaccg ccgtccagcg cctggcagag 3600 aacaagaccg gcattaccaa taggcaatgg aaatgggatc aagcactcga agtcattatc 3660 gaccccaaga catggatcct tttttctttc aatatttcc 3699

<210> 889 <211> 3224 <212> DNA

<213> Aspergillus nidulans

<400> 889

gatctgatgg agttaatgcc aattttaaaa gaaaattcaa ggccaggaga aagagagaaa 60 attgtataga ataaacctag cagagggtc gagaataggg ggtcataaaa ttggaagaaa 120

agagatcaaa aagggataga tcttatggat aaatccctag ggtgagaaaa ggaagcagta 180 atgtgccttt ataaaaggtt aaagagtggg gtcatggaat aaagatgtgg tgttgctttc taaagaagag tgccagttgt cgccgtgggg cgggcaggcc tggcttcgag ggggaaatgt 300 ctgaccctgt tgctccgggg ggataggcga cgagagacga gccgtggggg gttaaaagag 360 ttgcatttgt gcgatggggt tcgacggggc ggtctagggg gggaggggta tgaaggcgtg 420 agtttgatat cggtgtgctg tcccagtagt tactattgtg ggtgttgctg tcgactgcgg acgaaggagg gagcggagga accgtcgttg gggtttgctc ggttggattt qqatctqaqt ctatgacaga ctgggcatgc gagttgagat tctcggttgt ccacgtcttc ttcttcttt cttttgttga gagtttccgc gtttttgtga ttccgttgct gcgttgtgat gctgatgttg cggcttgcgc cgttgattta agggggataa gtgcgctcag tcgagtagag cggcggagag ccatcttggc gaagctgatc tgtcgaagat gcaaagattt tgagttttga actgcttgca 780 cagttatcct ggcctgcgga agttgtttga gtatgagagc tcaaggttgc cttagcaatc 840 agaatccggg gtgcggagtc agcggctttt cgctgtcatc cttacgaaag cggactcgta 900 ttccttttgc aaatcgcaac tctgaacgct tggtgcggtc gatgtataga gggcattgct 960 gaccctgaag ctcgatttaa agttggcggt tgcggttgca tctaccagat tcttgcctac 1020 ccctactctt ggatgcggga taaagggtcc gcagtctcaa ttccaacggc ttcttcgagc 1080 tgcatccatc tgatgcgccc tttatccagg gcccaggtat gtcattgtaa aacttcaagc 1140 tatagagtgt ctgcaagcag gataataacc ttcagaatag tacggagtct cagagtacct 1200 tttgcctagt cgctgaaatc atactgctgg ccacgcacaa gattggcgta ccaagtatgg 1260 caagtgaatt gatatccaat ggattatgaa acatgagagg ccgtacaagt gccgtcacat 1320 actgtttcat gtgggaaagc ttcgctctgt cacaaccaat cagtccctgg tcggtgccag 1380 aatgtcagac aagtcccgtc tttgtggaat tgaaactgca cagatatgaa gatctgtcac 1440 ttgtcctcgt gctgaacaaa gtatggatta agggaggtta aggaggtaac gcctcatagc 1500 tctcatttgc ttgatacacc gtacagatgt taacagtttg cggtccctaa acagtagcag 1560 aaggeegeeg etecatggea aaatgtetga cataettgag tggtteaaeg acaeeageet 1620 caactgaaag catgagaaat gcgcagccga cgcaggtagt gtcatcggtc aatgcttgac 1680 aaataataat ccgcctcctg aggtagcaaa cggcgcccgt agtttgttat gatctgggtg 1740

cagcgtctcg aatagacccg actgaaagtc tagccccttg gtcttatcag ccaccactga 1800 gtattgactc gatacaagtg gcaccagcaa acgtgttctt gaaatacgta tctagcaagc 1860 agaacgettg cateceaeet caggegtetg aeggagteat gatatgggag ateaaeaate 1920 aaggatataa ccctatgcaa gctttgtttt tggatgttga tctcgtcgaa caatctctat 1980 gggaagcctg ataacctttc aggtagccag gaaattagga gtactaggct acttatatga 2040 tatgaaacac gcaagatett cagacaataa agggecacae eetegetgat cagteetege 2100 gggaaagcat aacctggaaa cccaaggcca atattaattg cgatttgcga attgcgacaa 2160 ggatctgtgg agttgttttg ttatgctaga ctactagtaa gtactctaaa gactctgtca 2220 ttgggtgacg agcaacgagt tgtctcgtcc gtagctccgc ctgcaaaaac aatgcttcca 2280 actttcatag agttgtgtct ggaatctcct agcgaaggac attgctcaga cgcattctcc 2340 tcgatggttg gcagcgtgct ctttgaccac agtgcgaggt cagaaggaga gtcattgcca 2400 gtccggcgat caatatagcg agccttgata gactgaacga tcaactaggg tccatagcga 2460 gtagcgacaa gcttttggct tcgccaccct gcgagaatca tctactggaa gcgtccatta 2520 ggtttttctt gcttcagact tgttttcctt ttctgtaact ctcttgtatt gtacgtaaat 2580 taccggcatt aacaaacggc ttactggctc gcacgtgcta cgtcttttga attcgccaca 2640 cactattett agtgtecatt cetaagateg cetttactgg atgaccactg cgaattegae 2700 ccgcctgtgc ctggattttg ttgataattt cttgatctgg ccaattgttg tttggttgct 2760 agcccatgac ctcatgagct tcgggacqtg tgccaaacaa gtgatggacc atggtaacaa 2820 cacagtagtt cctcgcatgt taagaccctg tggatatctt gcttgaaatg ccaagtttgt 2880 ccttgagaat ctgaattcca agaaatggca taccggaagg cgaatggtgt tcgatgctgg 2940 gttcgagcat cggaagcggg ttgccacaat cgaccaaact cgccgggcga cgcqtccacc 3000 cgtcggactt atgatgttcc gtgtctatag cagcattctt cgataatgtt gacaccatat 3060 ccggggagga ggaatggaca taaatagaat atcagatatt gcttcaagac ggtctttggg 3120 atcgacaacg gtctggaatc tactcagagt acatcgcttg aagttggcaa gtgtctcgcg 3180 caatgagcct atctgtccca ccagttgaag gagcaatttt atat 3224

<210> 890

<211> 5353

<212> DNA

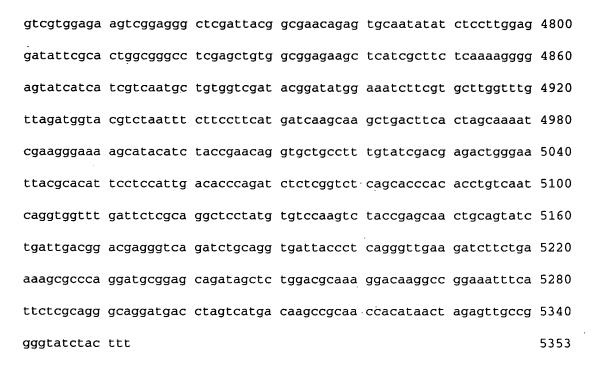
<213> Aspergillus nidulans

<400> 890

accccggtca cgcagcctgt gccgcctcca atgagacatg gcttctgctt ttccgaggag 60 cctgcgtata ccgcgaactg ctcatggtcg tattcgtgcg ccaatcgggt gactttgcct gcatttccgc atgtgagctt cgtgccgacg atgttgggat gctgcgccag ttccgacata atgttcgaat tcaggtcgac cccgttacac atggcaggga actatcatac aactatatta gcatcgtata gcaggtacag aagcttaaag catacgctat agatcacgat cgggattgga ctattgtcgg cgacgtcgcg atagaaatcg acaatcacct ccttagtcac ggctttgacc 360 cagtaggacg ggggcagcaa gaggccaaaa tccgcccctg cttcgtgcgc ctcctctgcc agacgaatag attcgtttgt agactgccgc tgatcccagc cacaatcggg aactggggag cctcagatca ctcgcagcgc ggcgcgcaac gcggaccagc tcttgccttt cacttgctgg 540 cagcagaact gcttcggctg tcgttccagc catcaccaga ccgtctacac ccccgcggat 600 taggtagaca aaatacttgt atgaggcatc gtagtcgatc teetggegta eggtaggett 660 ataaagtgac aggacggggc agtatatgcc ggccggtagg ggtttgcttt tcgctgcgat cgtggacgtc attcttatct gctatattgt aattacgata tctttttcca tttctttcta tctacacttc ttcttataat gtcagctacc caaagccccc ttcccacgat ttttggagac cttcggagga tggccgatca gcggagaaca gtccgccact gcgtttataa cagctacaat. 900 tggttcgcag agtgagggga gatggagaca acatcgaact ctgccagctg tgctgtactg 960 cacgagtcat gcaaggatgg gagcatggac tgactccagc tggtgaggca tcccctgtgg 1020 ggtagcgttg tggcagcttt gtccgtctct gcccaccaag acagtgcttg aatggaatca 1080 gcaccccgaa tatgcccaaa cgaaagaggg aaataccagc agtggaaaac ggccaccatg 1140 aatcctcagc ccaagaacca aacaagagct acaatttggc ggaggttttg ccggggatca 1200 cacgcaaaat cactgcgtgt gctgcgtgtc gcaagaacaa ggtacgggcg ttgaacaagc 1260 cctctcgagt atcattgagc ccgtctaacc agatagatcc gctgcgaaat gtctgacgag 1320 ggccctccct gtgcccgatg ccgtcgccgt gggttatctt gcgtgctgaa ccgcagtctg 1380 cagtcgctga tcgaggatac gaagtaaatc catcctgtca agaagagtcg tagagagaag 1440 actagegetg acctagegga aggaacatee ageteetgea aacegatgtt geacacetee 1500

atcacaccet caccettete tgecageate tegggetega gggeeceagg gegetegeet 1560 ccgcgggcga tcagcgtgac ggatcgtatc ctcctgcgga aaatgagcag tctgagagtc 1620 atcaggaaga aggggaaggc tgcgaggtgt cgcctcccga gtcaccatcg gctgtgcaag 1680 cgcccatcga cacctttctc gatatcacca aaacccggag cactcactcc attgactcgc 1740 ctccaagege gegegeegge eggteagggg caaggtegga cetgateage aagggeatta 1800 teagegetge tgtegeegag eggetegtte geaattaett etecaggeta gaceaetate 1860 tgtacggcat tggcggcgag tatcaggggc tggaccagct gcagacaaac gcgcccagcc 1920 tcctggccgc catctgcacc gtttctgccc tacacaatcc tcaagaccgc acggtctacg 1980 aggcetgeaa eegegaatte eggtegttgg tegegaagte eacetttgag aagegtgaca 2040 tcgactacat tcgcgcgctg tgtatcagtt ctttctggct ggccgacgcc tctcgcattc 2100 tctgcagtga tgcgatccga cgcgccgccg atatgcgaat gcatcgcagt tttgatgccc 2160 tgttcgagga caggacaggc acaggggatg cgcctggcct gtcagtgacc tctcccctat 2220 cgcagaatcc agcctctgcc accgaccgcg tacggctgtg gtatctgctc ttcgtctgcg 2280 accagcacct gtccatcctc cacaatcgcg actcgcttct ccgcagcgac aagggcattg 2340 cagtgggatg ggagtcatac ctgcaccgtg ccgaaaccac cgagtctgac gtgcgcattc 2400 tgtcccaggt ttctcttctg cttatcatgg gccaggtacg ggacgcccta ggttcagata 2460 gccagacccc gttgcccgct gctctggcta gccaaattct caactactcg cggcagctcg 2520 acaagtggta taccaaattc tccagcctct tcgtcacgaa cgccttcatt ggcgagttcc 2580 ccaagcgagg tctgcagctg cactatcagt tcgggaagct atacttgggt catcaagtgt 2640 ttaaaggatt gcatggccgc cctattcctc cgcacttttt gactgctgcg actatggcgc 2700 atgacacggc agctgccatc ttcgagatga tcctgggcga gcccgaactt caagaaggac 2760 ttgtcggcat gccgcattac tttcatgtca tgatcgcatt tgcaggccat ctcctgcttg 2820 aaatttgcca gaactactac gagcagcttg ggatcaaagt gcaggatgac ttccagctaa 2880 tcaacagtgc acttaactta tttcgtaata ccaaatgcat tccccagcat cctctatggc 2940 gaatgacacc tggtctgaac aggaagctcc acgactgcgc agccagcatt ggcgcccctq 3000 ttccggtgcc tgctaccaca gttccttatg gatcgggcgg gttgaatatg caaccagtcc 3060 agcatgagac cgtatattat cccccagtcc cgactgcggc accagcttca caagcgttgg 3120

atgageteet etteaeggat ttegagggat ttaattttee ggaettgaeg teeaaettea 3180 tgacgtagac ttccagattc ttcaacagaa tcccaccgta tcagcttcgg caacaccgta 3240 agactettet catacetgeg ggetategtg acegtgaata tegtegacea ggateetgea 3300 atttgctgac cggctggatt aggttgctcg aatataattt ctgacgtctc tgtgtcgccg 3360 atctcaattc actaatggta attgagcgtc agcgaaacgc tcggcacctg gaagatccac 3420 aagtttgagt atgggcatet gtgeateeat eetettegee agtetatgta taetegtaca 3480 ggccgagcac acttggtate ttegeetgta tgteegegaa gggtaegetg ateteaeeet 3540 cgaggactit cacgetegea cageaaaage tggggtatee gegagegeaa getggettea 3600 taggtaacga tetgtgtagt etatetgtee aacaacgagg ttaccageea tttetgtgaa 3660 ggcgggctgg atttggagta ttctgtgatg ggttcaataa taaagatgct agctaaaatg 3720 gtagcagaaa cgtaatatca gtgttcatag actcgaaact tgtaatagac agaatactca 3780 tgeetataca gtagaaaace geagaettee egegaaacag teattgteaa getggaaage 3840 accgcattcg agggatttct gcgggttgtc tggaaaggag acagaaaccc tctgtccccc 3900 agcggaagtc gcccgtgccg gtatgcagag cataagctgg atagcaatcc gtcttgcatt 3960 ttcggagaga aacccggcac agaacgccca gtccaagatt tctagctagt attgccccgt 4020 cagagccatt caactagatg tgagccaaaa tagaagcacg ctatgttgtc tctttcgtga 4080 aaagccggtc aactcgcaca aaatcttccc aaggcttgtc gcagacatac cgcgggcgta 4140 tatctgcgga cagagaatgg tatggcagag agtatattga gtttcgacaa agtccagcag 4200 cgtcttccgc ccgcgctacc tggcaccaat ctggcggctg agctcgtgaa tacgccaggt 4260 ctaccggtcc tcgttgtgct ggatgacgat cccacaggaa cccagacatg tcatgccgtt 4320 aacgtgctga cagtctggga cgaagagatc ctcgtccatg agctttagac qtgcaatcqc 4380 ggcttcttta tacttactaa ctcacgcgct cttccgacta cagaggcccg gaaattgatc 4440 agacagatat gcactgccat cacgaaagca gctgcaagag ctcaaaggcc attcgagatc 4500 gtgttgcggg gtgactcgac acttcgcggc cacttccccg atgagctaga ggcggcagag 4560 gagataattg gagcggttga tagctggatc ctggcgcctt tctttcgtca gggagggcgt 4620 ttcactattg acgatactca ctatgtcttg gaccctgttg gaaatctagt accggctgcg 4680 cagacaccgc ttgctaagga cgctactttt ggagacgcga actcgaacct caggaactac 4740



<210>	891
<211>	2276
<212>	DNA

<213> Aspergillus nidulans

<400> 891

cagggctgag tgtacatact tcccaaaagg gccagaatcc caaacaaaac aaaccaaggc 60 tggggatacc gcagctgagt cagcccgaag gtggcacgtg cggggcctat attgaggact 120 atacgccatg tagtatgcaa ctcttgtacc ccagcataca gtcattttct ggagattaga 180 aaaatagagg atatcagatg ctatgtcatt aatatgttga cagaacaatg tctgccgtca 240 agagtgccgt gatctctcca gcacaattca gcagcgcagt gtgtcttccc cgctgtggag 300 ategateggt teaatteece ttteggeete teggttteee eetgaetgag tttegateae 360 attgttccgg caagacatgc tttcaggcta agggctgata atcttcctat ttcttcctga 420 cgtcttatcc gcaactcgct aaatggatca tctatcgcgt ctgtctccgt tggcccattg 480 aatgagcatg ccgctgctat gctcgccggc tgcctggagc ttgaactatt ctcccgcatc 540 tgcactcgac ccttgtcctc accgcagaac cctcacagaa aatgagcatc ccactaccaa 600 tteggaegte agatggaaeg ggeaaettgt ettecageee geeaaaatee aaeggaette 660 Ctcgcctctc gccctcccct tccttcgtcc agaaacattc tcccaggagc tctgatactt 720

caggitized cogcitized agccatcata atgctcggca aactiticaag caacggcgct gcaaatcgca gtacccccgt gactctcccg agcgccatgt tgagttcatc cttgtcgcct 840 cgttccatat cgatcgcggc ccgatcatgg agcatcaata cccgggtccc attagtagtg atgaaggtat gttggcggaa ctgatgctgc cggaccagac gcacgtccgc agccaggatt 960 ggactatett etttetgeat aaggacaetg gtggggaggg gtagaagaee gaettggegg 1020 gggagaataa taagcggaag ggaaagagaa atagagtgcg gtcctcctcg ggcgatgaag 1080 ggaccagtgc ggacacaaac aatgaatccg aggtcacgga ggaagaggag agcagcgatg 1140 aggaagatgg cggggaagga ccgccattga tgtatgtgct caatttggtg aacacgaaac 1200 aagataacac tgttaagcgg tatgttcccc gtcaacatgt tctttagcgc cacagttgcg 1260 gctgacattg tggacagcgg tgctgtagta aaggccatgg ccatatgtac acgacattca 1320 tttcttcata tctataaagt aagcactcca taagcgtctc tgattgtcaa ctaaccaggg 1380 gcagcctatt ttgcttttag ccctggagga ctatttcaag aacccgtacc cagaaactct 1440 tgaaaccctc tacaatgccg tgaacgccat ggatctgtct ccgatgccga aactgaacct 1500 gcttgagcgc cagatactgc aagctacgaa cagcaaagac atgttcatcg agaagttcga 1560 gcagatggtc cagcagcgcg cgattgagga cggcgagaac gacatcgatg aggataatcc 1620 accetecceg agaaggggca etgetecceg ttacacecta eccegagata eccaegagtt 1680 tgagtctaag attatctata acgacattcc catccctgta aaggtaccca cggtgatctg 1740 gcctgagatc gtgggcgact tttcgctcgt caagctcatc cagattttct ctgcaccaca 1800 tgctgcatcg cctcaaccgt ttcctcttca tcctcacttg accaccagtg ggccacttac 1860 ccacccaatt atcgtcctcg tcaatgccat gctgacccag aaacgggtcg tcttcctcgg 1920 ccacaaccga ccgtccggag aggttgcaga agcagtgcta gctgcctgtg cactagcatc 1980 tggtggaatc ctgcgtgggt tcacccgtca tgcctttccc tacacggatt taaccaagat 2040 cgacgatcta ctgcgcgtgc caggatttat cgcgggagtc acaaatccta catttgctaa 2100 tcaccccgag tggtgggatg tgctctgcga tctgcctacg ggtcgaatca agatcagtaa 2160 ccacatagaa ccggctccgg tgactgacgg ccaactatac ttccagcagc agagcccagt 2220 tagegegtee ggeeegaatg eegateeeae aggggaeaae etgtteagga ggaeet 2276

<210> 892

<211> 3045 <212> DNA <213>

Aspergillus nidulans

<400> 892

tacacatacg atttatgtga cactatagaa tactaggatc ttctattcat gacagcccat 60 cgcctggtag tcgactaagt gtcctgggac atcattcgcc gagatataag tgtqcttctq gaaggacage agtttecaac ttetaaceeg etateattee agacetggat caaactacaa gcccaacgga gccagaacct tgagggaata gttttcagat ctgatctgcc acctgctgac 240 tttaagtact ggggcttgaa cgatggcaat acctacgagg acgaaacggt cgaagaagtg 300 atcttcaaca gccacgacac gaatgcatac tttagggacg caaacagagc cttacgtaca 360 gaacgtgtgg agattettet tgetgeactg ttgaagteet teeagaaaae ttteecaaat 420 cgccgactcc cagccgtttt tgaaattaac gatggccgaa acgtaggtga tagtggactt 480 gactteteaa acacagttgg caacttegaa tgtatgacae etatacacat etttetegat 540 gagecacaca aeggettgga tattgtaaga cagactaagg aegeaagaeg eagegeette 600 ggaagggttc tatcggacgg tcaacaagct ttcactgacc gatgggttga agtgctcttt 660 caatattccg aaggactcgc aagcgaaact attttcgaga cagtagatct cactggacct 720 gggacatctc cagttggcaa gagtacccgt cgtggatgtg tgtttaatgt caacgtcatt 780 gcgtaccccg ataagttgcg tattcgcttc aagttcaatc gcaacatgaa gtaccaggag 840 aagatccggg attgggctga ctcctatgcc aatgccatca gtgcccttgg tactgagttg 900 teaggagegt egeogaetet aactgtgaet gattteecae tgetgeattt aacatetgag agcctcaggg ttcttcaaga tgaaattttg cctgacgccg gcttgaactg ctctgatgtt 1020 gaagacatet acceatgtte tecaateeaa caaggeatae ttateageea agtgaaatea 1080 ccatccgaat attatatcca gcaatctttt gagatcatac cgaccacttc ctctggcaaa 1140 cttgaccata ctcgtcttct tgctgcctgg caggtcttga taaaccgcca ccccatgctt 1200 cgaacacgat tcgtccgttc ggcatccgga tcaagcgagc gtttgtttga tcaggtggtc 1260 ctcaagtcgt gcaaggccga agctgagcat gtcgagtgca cagacgacga tcttttcaga 1320 aaccttgccg tcaaagctac tctagatgaa cgacatattg acaagcgcat cggtcataag 1380 cttacgattt attcgacctc ttccaaccgg acgttcggca atatcattat cagccacgca 1440

ctcgtagacg cctcatctct catgatcata caggccgagc ttgcccaggc atatgatggc 1500 aagctggcgc ctgacaccat cggcgctgct tatagcgaat atatttcgca tctgcagaag 1560 atacccgcgg atcaggcgtt ggattactgg gccaagcgcc ttgctgacgc agagccatgc 1620 taccttcgag gcatgacaga ggatggaatg cagccagcta ctgctgatga ctccacacca 1680 aggaggccca tgcaaacagt atcaattgac atcaactgca ttgaaaagct acatagcttc 1740 accgaaacct atggtgtcac aattgccaac gtgttccagc tcgtctgggc catggtttta 1800 gcccagtaca ccggctcgcc taatgtgtcc tttggctatc tatcaagtgg tcgcgacgtc 1860 cctgtcaaag atgttgagac catggtaggc cccctaatta acatgatggt cactcatatc 1920 aaactagaca tggaggccag tgctcagaac acactcaagc aaatacaaga gaacttcttt 1980 gagagettea actaceagag ageaecettg gttgagattt ggeaegeeet teageteeag 2040 ggcagaagct tgttcaacac agcgctttcc tatcgccata ttgtttcagc agaaaaacat 2100 cagctcagtc tcgcgctaga gcagatcacc ggtgaggatc ccacagagta tgatgtgacg 2160 gtcagtgtgt tcgcatcgcc agaaaagata tccgcttctc tgcagtactc gccagatttt 2220 ctttcctacg atagcgcgaa caggttgctc ggctgtgtcc ggcagggaat ccaatccctc 2280 gttactaacg gagataccca tgtcggacag ctaaacaccg taacgccgaa ggatatcctg 2340 caagtccgtg cttggaatga caagattcct gccgttgatg gatattgtct tatccatgac 2400 ttattcaatg aacagcggct actccgacct aacgcacaag ccgtctgtgc ctgggatggc 2460 gacttaacat accaacaact ggacgagatg agcaatgcgc tggctcacca cctagtgacc 2520 ttgggaattg gtcccgaagt aatggtagcg ctgtgtctgg ataaatctaa attcgccatc 2580 attgctcagc tcagtgtcct caaggcagct ggcgtcgttg tgtcaatcaa tccaaagcac 2640 ccaacgcagc gcctggaact cgtcctcaaa gatataaacg caaaggtgat gctgacgtcg 2700 catcagtatt catctcagtt caggaacctt gtcccgcata ttctgcacat ggacgagaca 2760 ctattttctg ccctttcttc acaaccccag cctccaagta cgaatgttac ccccaacaac 2820 gctgccttca ttatctacac aagtggcagt accggtatgc caaaaggtgt cattttaacc 2880 catctttctc tatgttccag cttccgcgct catggcaaga tttacgaaat gtctcccagt 2940 actcgttcac tccaattcgc tgcctacacg ttcgatgcca gcattagtga tatctggggc 3000 actatgtcgc atggggggtg cgtctgtgtc atatcagaag aggag 3045

<210> 893 <211> 8213 <212> DNA <213> Aspergillus nidulans <400> 893

tgccgccaat caagcatatc cgttgaatga gttgtttcgc cgtcgcaacg caggttgtga gcgcggctgg aatctttaag cagatcctac ggttagcaca actcaccgcg atcgcggttg cagatettae ttatgaggag agatggaaaa agtgeeetgg ceteetegag ggtaggeegt 180 ataccegtte geaagggegg egtgeetatt categetgea gaccatteae eeggtgeege 240 cgtttaatcc aaccccaaag cacctagttc gcggaaagtc gttcggtcgc aaagtgaggc 300 gtgggaagtt gtgggtttat gaacgttgta cttggacgag agaatacgcc gggaagcgac 360 gaattaaata gcgaaagctg ctcccagggc gataccgaag tggcagaaag aagagaacga 420 atgactggca ggaaagtgag gcttttcatg tagtaatgat ccaaaggatg acgagttggc 480 gatteteega ggaccagace ggeeggggee eggaagatee ategggegeg tteacetete catgccgttt gcagccatct taagtcccac acggccaagt ttgttccacg gttccccgat 600 gtcttttggg ttgtcaattg aattgattat atgcatctgt ctattcacta aatacaaggc 660 tgtattaaag catcaccttc agcgctaagc atatgagatc gcgaacttca aagcatcggt 720 aaaaccaagg ctgccaaact ccaagaatgc aagggaaagt ctagaccaaa gaaaaacaaa 780 accaaggcga acgatctgaa acccgttatg caatcagcaa cttaagcgtg atactctgga cgagggtgac cccattccct taacaccgac ctcgacttgt tgcagcatct tcttcaggag 900 tgcgtccatc tccttggggt cccgcatcgc gggaatgacg gatccggctt cgtactcgct 960 gtccaagata taatatcgct ctctgcccca gttctccacc gtgtcgggct ggaatgcgac 1020 tttcgctatc accttcgctg gtacactagc cttgttcatc gcggtcttgg agaacactcg 1080 caggaacggt cgaagtccag atcgtgtctg gtgggccatc ttcacagaca atggagctgc 1140 gttcaccagg tgactttcac ctgtcatcac tccagggtcg agagtgtata cgttgaggga 1200 gatatttccg gtctaggttc ataccgtcag ccaagatctt tttaaggaaa gcattatagc 1260 ttaccaacac caaactacgc cgcagcgcgt acatggccgc actcataatg agcttactgc 1320 ttccaaatct cttggttgct tctttcgcac tcagcggcgt tccaggacag acgctcagct 1380

cagggtctgg attctcaaaa taatcgaggg tgcccttcga catggacgaa catccgatat 1440 taatcacccg cgcgccacca ttcggcgtgc catcaccggc cctgaacgcc tcaagcaagc 1500 tcactgttaa taagaaaggc gctatggcgt ttgtctggta gaccggatca tggccatctc 1560 gtgttacctg atcgatggtg tatgacgaca tagcagcgca gttgatcaac agagtcactg 1620 geggaattte titgetitte actetetega eegtaatete egtgaagetg acgaeegaat 1680 tgaagctcgc caggtccacc ttgacaaatt cgagggaccg cggcccgatc agtcggatct 1740 gctctctgac ttttttggcg ctctcggagc ggatatcgcg cgcaaggagc agcaqatgaa 1800 cgtatggctg ggttcttgca atcgcaagag ctacctctga cccaagcgac ccgtttcccc 1860 ctgtgataat ggcggtgccg accagcggag tacccatcgt gaaacgaatg tattgaaggc 1920 tgaagacctg acaaaaggat aacaaaggag aacttttgcg tttgcggact agactgtttc 1980 cagaatcacc atcagcactg ggcaaaggga tttggatgcg aagaaaaagt cactcacacg 2040 aaggacggtc agagaatcga atccatcgaa ctctgcaggg tctgagggtg ttacccttag 2100 aaatacgaaa atgaaagagc tccggctgaa aaggatccta ggaattgttg gaaacgccca 2160 gctttgttcc aagatgagcc agggtaatct agatctcgaa agtgagactc ggtcaatcgc 2220 gctggaccaa gtggggtcga tcagtcggat ggagtcttgg acagcacagt ggaaaattca 2280 gtgacaatct atatacaacc gacttggagc agtagaccgc caggagacgc tagctgcgta 2340 agtttccaat actgccgagc agccttgccc ttttgaagcg aggaataatg gggtaggcta 2400 ggtgaggcgt ctttcctgtt cctacaggta tgatttcttt tctgaactcc tataattaac 2460 cccaaactaa agcaagacat gcgacggacg tgtcatcgtc gcactgctgg attattctct 2520 ctgcaggttt cgcttaaccc tacgcaatgt aaatttattg tctgatctat ttaatcattt 2580 tgaccccgtc gcgactgccg gctggttgcc gagcgctata tcctagttta ttattatact 2640 getetactgg taaaggeeca gagaacegag eeettagtee tgtegatega ataeteeaga 2700 atagacgcaa agagatccaa gttccctata gcaccaaaac aacaaaaacg acttgcggag 2760 ccgatcccaa cattagaaca aaccgcgaac ccatcaatga acttaggaac ctcgcctatt 2820 cttgctccca ccgctcaaga cccaaaggat tactcttgac ctgacgggta catttcgcta 2880 gategegeca tattgtetaa taccategee egtttegeet taaggeteae geegeaaact 2940 cageetttea gecaagegtt ceteggtgge cateeegeeg acteeteeae eggtetageg 3000

ggagctggca gtctgagcgc aggctcgact ctcgcgaagt ctcgagtcca cgatcctaaa 3060 atgcagattt tcggccgtct gcgaactgag cggcaaactg ggcgaggact gaacgcaaaa 3120 agagaaagtt tgtacgtatc atcttcaata gactaactca attgagcact gaagactgca 3180 gactgccacc tgacgtcccc gtccatattc catactctgt acaatcagcc gtgtagatca 3240 agcaaggtgg cgaagatect gtactettgt ctataceteg tettgtatat teceaateee 3300 cggcccgtca gactcggaga atatcaattt tgaatttgta agacgagtat gacagcataa 3360 gcccacggta gaccctgctt cacggtgcaa tattctccga ctaaagacgc caaatccgtc 3420 atcatatttt gatcgcgact gagctgacgg ctcagtccgc cttttcagta cttctactgt 3480 atccagctgc acgtccactc acggactgca ggactaccag gctggtcctg gtagtctgca 3540 gtggctgagg gtaaatttct gcgctggggt tgcagttaca acttacaaag acgctgtaca 3600 tatgtaccta atacttacct agtcctggaa gtattgtagt ggtagtacta acgactggcc 3660 ategaggete aagegetgae eegegtgttt ceataggtat gtgttgtege tttegeeate 3720 caatgeteeg tteagaegag tattttgeeg accaataega ttgtttaaet aateeategg 3780 tetgggggeg gttgggetge gaacgacetg ceaeggeagg egttgetegt geecegegaa 3840 ttctgttcca atgccctcac acgtgtctgc actctccatc gtctgaccga gtctgcatga 3900 atatttgttt agacatttgt taatgggtta catttgatag ccatcagcta ttcccggggt 3960 atctccggtg gcgtgcttag cgctaacagt ccaaattagg taaggctgca gcctcgcgat 4020 gcatttcgtg gagaggtaga catagagtat agtgacttgg gcggtagtag atccctttcg 4080 agtagtgtgt aaagtgtcgc gaacccgtga catcgagttc acgccgtgct tcgtaaacgg 4140 ttctacccaa gtagatctag taatatattc aacaagggcc tgagaagtac gtagtcagat 4200 ggttggcgcg ttggtctcat ctcattgtct gatcaaaatc tacttcgtac atgactcgaa 4260 gcaagtatgg gtctcaggga aatcggtgac agtcacttgt cagactctga ctcaaactga 4320 gattggttca tgttcaacgg atgtatcctg cagatcaagg tacatctatc gatactacgt 4380 ccacggtata cacatattag tcaacccgtc ccagcactca ggagcccgac cggccaatgt 4440 gcaacctagc agcggtgacg ccagcctgtg cgacgcgagc cctaaaaaca tacagacttg 4500 gateggtgta taacatgatt ggttgggtee etegttteat gttategegg ateatgegge 4560 aatgtcaatc aggatcttta catgcttatc tttctcgtcg acaagcgcct tgaagccctt 4620

ttettegaeg teeteeatee ggatettget agtgateatg ggaeggggat tgagtttgee 4680 tagagcgtgt aggagaccag tcagcatgtt gccttctcaa cggaactgag taataagcaa 4740 gacgagaaag gatgagtaac acaccgtctt tgatggcccc gatcacagcc tcaaagtccc 4800 cgtcgtcgca aattgccgcc ccaataacat gcttctcata agaaaccaca tcaaacgcat 4860 cgatcatggg ctttttctcc cagagcgaca caatcgtcgt cgtcccccgg acccggattc 4920 cattcatggc tgtatcgaac cctgcctgta ctcctgagca ttcaaagctg atgtctgcgc 4980 ctgcattatc cgttaagctg cggacacgcg caacgacatc gtccgtgaga gggttgaaaa 5040 cgtgtgtggc gccgagggtg agcgcatatt cgcgtcgctg ggtggagacc tcggcgacga 5100 cgacggtttg cacgccccgg gctttgagga cctgcacgac tgcgaggcct atggggccgc 5160 cgccgacgac gagcgcagta cgcgcagttt cgtgggggct gcgggctacg gcatgccagg 5220 ctactgttag aggetegaeg agegetggge tetgetttag etaggteagt gaaaagtgea 5280 cttggcggac tcaccaccaa gatccagggg gacgctctca ggcaacagaa tcgcatgctt 5340 ggctggaaca gtaacataat ctgatagacc tccggaatta cctactcagg caggataagt 5400 tagttatega etecageece tgtageacaa eeteteagge teaeteaetg ettgaaceea 5460 ataaacccaa ggctgcgaca gcagttgggc ctcccgtata cacaagaggc gcaggttcca 5520 teegataagt ttggeeggae ageeactega tetecaaett tgaaceetgt aacaeettge 5580 cctacttcct cgatggtgcc gctgaattcg tggcccagcg taacggggag ctgtgctcct 5640 gtgagggggt ggggtgttgt cgggatggcg attgggccag agaggtattc gtgtagatct 5700 ggtctgtgtt aatcgagatc tccatctgat gggtgcgttg agatgatgag gtctaagggt 5760 atgtacgaac cactgccgca tattccaaca aaggcagggc ggatctggca gataaacaga 5820 tgtcagcgtc tgagccgccc cggggaaatt gaacctgaaa cacagcaagc aggtgataca 5880 gactttaacc tgcccttctg cacaagatgg ttcgtcaatc tggtcgacgc ggatgctggg 5940 gcgcccgtgg aaccgaaccg atctcatggg gcactcgttg cagacaagaa aaggtggcta 6000 tagctttact caggctaaga tggagcgcgc agagcacaag agtggggatt gatattgacg 6060 cagatattaa tgccactcat gaagtggacc atggccatcc gccagaggct ataggcgctt 6120 ctcccgtgaa gaagagcagg agagagcccc acctttcaag tcaacggaat ctttacggtt 6180 cctcagattt tcagtgctgc acctgattac tgcgttatat aaactcaggt gttggtatcg 6240

tggtgagcgg gcaggttgat taggtaggtg gaactgcggg gcttgaagca cttctcgggc 6300 atactaaact actataaagt gccgatggga gatgtctttt gcgcaaccac tgaattatta 6360 gctccggtat tatggcttat gtacagtcca gtatagcaac acgaagctct atattgatta 6420 agtatccatt aagatggctc aagagctagg agaaacgaac gagataattc gatcagacag 6480 gagacgcaac gccgatcgac gggccacgca ggtcaaagac aacatagaag gctttcagga 6540 aagcatcgcc tagaatttgc atgtcaagac ccgagttgga ctggacacct ccgtagcaga 6600 ctgcggaaat attagcgata tattaatctc tagaaaaaag attgtcacat accagcttcc 6660 ccggtggtgg tgttggtgcc aacttccgag aaattaatca aattaccagg tactgtcgcc 6720 agatgctgag ggccgatggc gatggagagg ttgggcaact cggcgctgca ggggtagatg 6780 tagectgagg egetggttge gtactgegeg eetegeacet gtgeatagta eteatetaeg 6840 acggtctgct cgaggagcat gagcgaggtt cccgtatcgg cgattgtcca agttgcgtcg 6900 tegtgettet teaacgtgee gtetecaaca eggtagtatg aagactegaa tttecagaat 6960 ccacccgaag aatcaacggt tgcattgacg aggttgcctt tgtacttgga cttgtcgaca 7020 gtgccaaact cgtactcgcc gactccatca ctcacaagag atgcgctgag gacaggctcg 7080 tccaggacgc cggcgattgt ttcaaaaaag gacttttgct gtgtgggctt gacggtgttg 7140 agtgagetga aacceagtee caccaggeeg ttgetgtggg tgtettegag gatagatgag 7200 gcaactgcag taggaaggcc aattgcttga cctgtcactg tgacccctcc cacattgatt 7260 gtatcagttc caacgggacc gtacgcatac gagtcgtctc cgtaagtgat gttaaaggtc 7320 gaccctgtca ttttcttgta cgtagtggac tttgatgggt caaaggccgt ttgcccttca 7380 atagagtett tggggageag tgtgtteace acceatetgg aaaettgatt ageactateg 7440 agcgtgggga aagaaccgta gcacatacac atcagacgaa cccgtgtcaa aggtgatggt 7500 gagttcctgg ccaccaatgg taataggcga aacaaaagac gcatctccct cgacagattt 7560 ggcactgaca gcaccggtca agtcgggctc agcgacttcc gcgtcagtat cggccgcagc 7620 agcaacetta acgetgggtt caaagteate taggtegagt eegatgteeg eagcaacaat 7680 gccgtacttg acataggcct ttcgtagagc agctggaccg tagatagtgt tgctccggcg 7740 gacagtetea acettgaagg ateggegtte ggettgettt agagtgggag etgegaceae 7800 tecatageeg aacceeagag egateaaege ggatgggatt atceteateg egaatgaatg 7860

aaacgaatgg acttcacgga gcctttagat ttggaaggcg ggtgatattg attacggcaa 7920
agacaggact tgctccagag caaagaaact gcaaattcaa gagaaaagaa tgtgtattgg 7980
agccagtggt ccagactgct ctcctggtgg tgtcgaaaga aagaaggaaa gaaagaaaga 8040
tggatagggg acagtcttga agattgttgc acctatagtc agaagaaaat aacaaactgg 8100
atcagcacat ggtaaggctg ggagtgcagg gaatgggata aatagagaga gagtagtttg 8160
ggaagaaccg atgcattgtc aaaaagctct ggtggagttg catggcaagt gaa 8213

- <210> 894 <211> 8342
- <212> DNA
- <213> Aspergillus nidulans
- <400> 894

tggtgccttt tcatattcgt agttcctggg atcggttttt tctgcatata cgttaaacat 60 tttcagttct ctcacaacac ccccaatacc ttcaccatta ggtaggtaca atctctaccc 120 ttttctttag attttccaac tcttctagcc gtacaacccc cagattttct gtcatttgtg 180 ttgactcctt tttccccagc gcttaaatta ccccgccatt cctccacaat gggctcgact 240 ctcccctatc tgaagaccaa ccctcagatc attttcttct cagattttga tggcactatt 300 360 actatcgacg acagtaagtc catagcatct gcggttacca tgtcctgagc gctaatcgcg acaattgtag gcaatgactt tatggtacag cgcttgatct ctcccgcagc agtcagatac 420 tgatcaaaac cctctgccag accgacaacc ttggctttgg ccaggagaag cgccgccagc 480 ttaacaagga cgtacttgag aataaggtta ctttccggta aatggtggcg taacagtaca 540 ctcgcacgag atgctaatag tttgcctcga tagtgattct ttccgagaaa tgctcgacag 600 cgtccccaat gctttcgatg actgcctcga gatcctcaag aagaacatgc gcctggaccc 660 acatttcaag gaattctact actgggctaa ggagaacaac gttcctattg tgattttgtc 720 ctccggaatg attcccgtga tccggacgtt attggagacg ctcctgggcc acaacattga 780 tgaccatctc acaattgtcg ccaacgacgt tgaaagtcgc gatggcaggg acatcaacac 840 tccgggtggg tggcaaataa agtatcacga tgacacgtat gattggcgat cttcatgctc tegtgeagta tgetaacgtt caagetagee aetteggeea tgataaatee ttggagatta 960 agccgtacgc tgcggtgccg ttcgacgagc gtccgaccct gctttacgcc ggcgacggtg 1020

tgtcggactt gtctgctgct agcgagacag atttgctttt cgcaaaagcc ggcaagggta 1080 tgtggctcaa gttttcctct tcaaagattg cgacactgac ttgtccagat ttgatcacct 1140 actgtgagcg cgaaggaatg ccatacacgg tctttgagga ttggtcatcg attcttgcca 1200 caacaaagga tatcctgagt ggcaggatga aggtaaagaa ggaacagaag gagtaaagcg 1260 actgatctaa agatattaga agggagtata tagatctaga gatagaacta ttgtcatata 1320 aaaaggcctc gtattcgtat ttcggcagag ttgccacgca tgtgaccgcc ttccagatca 1380 accectgeeg tetteactte gagaaatgaa eggeeeettg agatggeete etgettggae 1440 tgactttggg cgaacccctg aatgtgcttt gtgttctcga gactcaactc gcatcatgct 1500 ccagcgcccg gctgttctac acatgtttag aacttgccag gggcgctatc gacgatcatg 1560 acacgccgtt ttgtatgaca ccgtccgctt aagagccgct ttccccaact tgtggagcgg 1620 ageteagtge acacatactg accattttet etetetgeag gttegegegg gegtgeaget 1680 cgccattttt gettegtttg etetaettet tattgteaet ettgataaea gatteegtgt 1740 teteccagee geaatteaeg gecatettee etcecattat gegggetttg ttgtaaegga 1800 cgtgaccgta gcgacgtgct cgatcttgaa ccccttttcg agctgcaaat cttcggcacc 1860 atggtggact caggtggaga aagacttgta cctgcggacg ggttggacct ccgcagcata 1920 cattcgattc cagcggaaga aggaagagga gcttcttcct gcggataagg tcgttatcga 1980 cctgaagatt agcagacttg cgccagaagt ccaagatgat ccgaaagaag ataaagccga 2040 ttgggaacag cgccccggcg gcatatggtt aaagaggacg gcgaagcgac acgcgagcga 2100 ttctcacage gecattaeat cegttgatgt cettttegge gecgatgegg tegateeteg 2160 ccccggttgg gaagtcaagg acacacccat attgctagat agtcggacgg agagcctgga 2220 agcteggate aeggttegga ggggagaeee aetgaaaate aagaaaeegg taecaaggat 2280 caacgagaat ggtcgattca agatcatgca gctggcggac ctgcatctca gtactggttt 2340 aggacactgc cgggaccctg tgcccccaga gcttatccct ggccagggat gtgaggcgga 2400 teetegaaeg etagaettta tagagagaet tettgatgag gageageeag atttggteat 2460 tetgagegga gaccaagtga aeggtgaaac gteeagagat geacagagte etetetteaa 2520 gtccgttaag ttgttagtcg accgcaagat accctacgcc gctattttcg gtaaccatga 2580 cgatgagggt aatctagatc gccatcaatc catggcaatc ttggaagatt tgccatactc 2640

actctcgtcg gccggtccag aagatataga tggcgttggt aattatatcg tggaagtgct 2700 cggtcgtgga aataccgacc attccgctct aacgctctac ctcctcgact cacattcata 2760 ctcaccagat gaacgccagt ttcggggtta tgattggatc aagcccaacc agattcgctg 2820 gtttaagacc acagcccaag gtctgaaagc caaacatcaa caatacgcat atatgcacat 2880 gaacatggca ttcatccata ttcctcttcc tgagttcgct caaagaggaa actacttccg 2940 cggaaattgg teegageeet eeacagegee agggtttaat teeggattea aggatgeeet 3000 cgaagaagaa gggattettt tegtaggatg eggaeagtaa gtaetattta etettaacae 3060 aaggaagtat agtcgctaat aaatcccgca gtgatcacgc taacgactac tgcgccctca 3120 gcaaaaacga ggcccagaaa ccgtcactct ggatgtgtta cggaggagga gccggttttg 3180 ggggctatgg cggctacggt ggcttcatcc gccgcgtgcg gttctttgac tttgatatga 3240 accetggteg ggttgttaca tacaageggt tggagtatgg taataeggat gegagaattg 3300 atgagatgat gattgtcgat gggggtatgg tcaagggacc agattgattg accatgaact 3360 tgaatttggt cccacatgta tgatgagaca ggcctaggtt gcataaaaaat ttcaccagta 3420 tgccatttgt aagatgtggc gcggtgcgcg taatatggtc ttgcatttcg accagacaaa 3480 gggcgtctct ctatgaagga tttggagtat ggaaatggtg aacctaagcg aaatgccttg 3540 atttcagttg gttctcaaaa actagacaat ctaggtagac gtaggcatcg cgcagcaatg 3600 gtgggcagtt aggctggaat ctacacaaag ccagaataga ccagcctatg actacacgaa 3660 gcttcacatt atcctgtcca aagtgataat tatataaaag ctattcagag gataagactt 3720 acagtccacc ttcccaggtg ttccagtatg ttaatgtatg cagcaaagac agaacaccct 3780 gccgtttgct ggataataga cctacatcga agccagcagc atcttgccga agcccattca 3840 tccagcgcag gtacaggttc tcatctaaat agggccggag tcttcgagta tccatgaccc 3900 aggatcactg tatttgagct tttcacccac aaacttggag ccaataagaa ggcgtaaagc 3960 caaactatag tcaatcactt ttagctctca accaagaccg aggtaccgtt caacaacggt 4020 agcgtcctgg tcggagaatg cgttgttggc atccggacca ctatgcgcga tgttgagggt 4080 ttgagccatt aggacagggt ctagagccta ggatgtcgac caggcccgct ttagaggttt 4140 gcccatgcag acgcattcct aaaggaagag ttcgaactcg gggttctgca catgtatatt 4200 tggattgagg aaggttcact gttgctggcc gaagaatgcg gcaaatatga gttgagagga 4260

tttctcaaac gatgacaaaa cctcggagtg gttttctggg gtatttatgg acaggatcct 4320 cagectaeca ceattteteg aagaagaete gateettteg eeegtttaaa agtteagtga 4380 cgatgccgac aacctcgtcc gtcatctgag gtggtccgca gacatagcat actgtgttat 4440 caggagaata tttactgtct gttccggtga cagttctggc gagatcatct cggttgatgc 4500 ggcgagtatg aatggctaga tcttctggag attggcgcag gaatggagat gactggtctt 4560 ggaggttact aagaaaaaga tcaagggcaa tacgcaagcg ctggaactga gactgagagc 4620 ggacgatctc ccgcagacgc cggaggaaca atatctggtc gagggctgtt tctggtgttg 4680 tcgattctgg gagcttggaa gagtagagaa tgtggatgtt cagagaggga tggtagacac 4740 cagtgctttc atcattgttg ttcagatgag agagcatgga gatgagagga ctacagggta 4800 ttagcaagga tactcgacac ctctttcgta tgcagaagta gacttacttg atacctagcc 4860 caccagcaac gaagacaaca ttttgaagtt cttcgagctt gacgccagcg ggcggccata 4920 taaagctgcc gccaactcgg atgctcagct ccttacccaa aatctcttcc ttgggccgcc 4980 agagccatgc actagcggga ttagacggag cactctgaac ggccagctct acatatggct 5040 cacggccccg cggatcaatg ggaggaggca gctcttcgtc tgccgggaca agctcaggcg 5100 agggeteaag tgaegggage acetgggeat etgeaggegt ggaegtgata etaaageece 5160 cggcatttgg gacggaaggt atatgaacat cgagccattg ccctgggaag aacgtaaatg 5220 gttctggtaa cgtagcctgc agcattttta gtataagcta tataacgatc tggagctgtt 5280 gagtcccata catcatcaga attttcgagt tgatcttgcg aattcgggtc ttgtatactg 5340 ggaggtagag cgagctgcaa gagtcggact gtaggattgg cctgttcaat gtgcgacagc 5400 cggacaggat acaatctgtt ctgtcgaggc tccgcagctg tgcgtacagt atgaggcact 5460 gaaagcttcc ttgatggaga actcatggta gtccgcggaa gtagagaagt gatggggaga 5520 gtatcgaggc gacgggtaag acagacgcgg cgttggaagt atgaaatctg catgcagagc 5580 aattaccagc tgtgaatact ttgaaatatt attaaccaac attagatgat gagagaaata 5640 tggagttgag gttacttgac ttgaactttg agtgacgttt agttgttgat tacataatgg 5700 cacatgactt gccgttactt ttccgcatga agctattcgt acacacaaca catcctcgag 5760 ttccatctcg aattctatca tagcttcgct taaaatgcaa ttgctatcac atgtcgttca 5820 atcaatcgat ttggcatgga cggatgttag tgtgtgatat taatcgctat ccctggcagc 5880

atgctaaggt agctgagatt gcttattctt ttgctgtctc cacccagaat gacctgtagt 5940 cgagaccaga cgtgagcatc cgaggccaaa tgaggccaat aaagtcactg gccgggcttg 6000 ccagacgcta tcgaagactc caccggcact gagcctgcag atcgccttgt ccatcacacg 6060 ggctacttta gtgtgtgatg ggccagcact gacattagtc ctctgccgcc ccattggtgc 6120 tcaaccctga gcttgcgtcg gcgttggcgc ttgcacgaca acccgcattg gccagatgta 6180 tgctgggaaa catttcaccg cacgcctgtc agcgttcttg cctgccattg aagcgccgaa 6240 getteeecte teetgatgtt gggaateggt ggaggaeteg gtetegagga gtetgaetge 6300 ataattatgg gegetteece gggatgattt tegacetttt etettggtat ttgttteage 6360 gtctcgtgtt tcctaagagt ctaaaaccga ccgataggct tccgatgcga ctgcattgaa 6420 tgtacagcca gccggtctgg cctcagtcaa tttcgattcc ttctagaggc attcatacat 6480 agcctaactt ctcggcgacc tggctggaag ccacaacctc gagcaccatg tatatcccaa 6540 agaaataccg caatcacaat ctgatctaca ttttgatggc cgtggagctc gcgttcatca 6600 ttcccatcct cacattcacc ggcatcgccg cacacgatcg gtatcggact aagttatggc 6660 aagacggcta tgagaatggc ttcaacagct ctcctgacac ggctgtctac gctgctgcta 6720 actategece etacaacact ecaaaagtet ggteetegtt gtatgteete tecaataget 6780 catttattga tggagaagta agctgatagg cggcagcact acgaattgga accttgtaat 6840 ctctgtctta agcaccttta tcctaatcac caaggttccg ctccacattc ttggcatctt 6900 ataccccata gtcctgggca ttgtccagac cggcctgatc gtcgtctatt gcgtctccgc 6960 cgcatggcaa gccggcagcg atacctcgga cccagaccac cgccagtccg gggccccatg 7020 gtacatcacc aagaactgca atgtcgccca tgactcagga aacgtcacat actgccagca 7080 agccaaggcc cttttcgcat tcaccatcct catcatgtaa gtcccgacct caagctccgt 7140 ttttctttgt ccgagctaac agatccaata gtgtcttgta cactgtcgaa ctaggcatcg 7200 ccatccaaaa ctgcttcata accgaagaag aacgggccga gcgtgacgaa gagcgcgaag 7260 aaaaagaaac aatgaaagca tacgaggaca tgatcctaaa atcccccaca atgattccta 7320 tgacceccag tgegatecca atgacaccag geeetggagg gacagegaeg gegacagete 7380 aatteecaeg ttegeeaatg eeegtggtga egeegegeag tetggegttt aacegaeteg 7440 actogaacga cgcgtctacg cccacgtcta cggaccttcc tcttcgagaa cattttactg 7500

agccccagce gcagatatat ttcccgccgc cccctaagaa ggcaaagaaa tgagcagtcg 7620 cttgcacaag tgatctcgtt tctacaaagt ctcgcatcat tatatgctcc cgaacatccg 7680 cagaccggaa atcaacctga gcagcgggga tgtcaatact tagggactaa aactgctaag 7740 catctgtgac atcggaaatg agggagagat ttctttttag acatattcgt cggattcgct 7800 tatgccgtct gcttgcgagt cgtcagatac caggagttac agtactttta ctatgttttt 7860 cataatatcg ccgttgcaca tgattccata atgatatacc aagcaaggca actgacaacc 7920 aaccaaatta tttgtgaata gttcgaaaac caccttaata atacaggata aqccqtaact 7980 agtagagtet tgacateatg egtatataga getegaggae tgaaatattg eeeggetaae 8040 aagtcatatc aagataatat aagcacccga gatatggaag tagacgatat tataccqtqt 8100 catteegtgt egtettgtat egtgegeatt egtagtteet aetgaaagat gggtaggaac 8160 ggtatcgcta gagtgtcatg ataagagcgt cacccattga gcccattgtg acctcagagc 8220 cagaagtcga atgcgtccag tcaccccata gaccagattc gttggagggc ctcataagcc 8280 cgattcttgc cgaatcttcc ccattttcgc ccagcgttct cgcggaactt cagcgctctg 8340 gt 8342

<210> 895 <211> 3198 <212> DNA

<213> Aspergillus nidulans

<400> 895

gtcatcgtcg atgtcgaaga cgcatcacac aatcccgcag caaaatcttc ctcccagaga 60 cgtctcctaa tcgtccctaa cctatctatg gcattgccaa ggttgggagg gagagtggct 120 gctatctctc tcttcaatcg tgccgctagc ttgcagcccc gtcccgaagt cgtgattccg 180 acatgaagag ggccatccga ataggtggaa agcaagctga atgtgcaaag atctggagca 240 tcagaaacat tcactgggat cctgagccgc cggcatagtt tggatatatg agagcctgtg 300 gtttagatta gacgactcgt gccttatatg ctatggcgcg gtacatactc aatgggtgat 360 ttccaccaag ggtaacaaag accatgtcca caacatgatc cacctcttcc ctccctaagg 420 tcgtcaaatc ggcatcctca aactccctct gaacccactt cgcattgcca ttttcaaaat 480

gcgccgccaa agtatattgc agacttccag gatcgggcga gatgactact ggtttggctc ctgcttgcac gcttttggtg caacgagctg cagcaagagg attcgcccca acaataagat 600 gcacctgaga ttctgcattt atagaagcaa gcagcggtat ttgtgctgcg ctttctgatg 660 catectteat gatggagage taccaccaaa egeaagtttt ggeggttetg gteaagggag 720 tccaaaagaa aggtctgtca gagactaaaa gtattgtgtg agtgcctgta agaccggaat 780 tatttttctg ccctcgtcga gcaagtgatg cagtatatgg agtatattta atactgcgac 840 agtgctccgc ggaaataagt caaagccaat tgggtgggag gcgatagaga taacqqcaaa cccttttttg aggtcgtttc caattgtaat tttctgctgg cgaacggtcg ataagcctat ctcaagcgac tagaagatcc aatatgtcag aaaatcagag caatattaga tgactccatt 1020 cactgtgggc tttttgccct cgtccctgta gattttatac atcctgcctc ccaaagcagt 1080 taaagcgatc acgccatcag cgatgcttat ataattttaa cgcctgagaa atcagacaca 1140 aacaaggcca aaatttccgc ggaaggagca tgatacagca aagacaatgg agctcaaagc 1200 ttgcacaccg tggagatatc gaacaacacg aaagatgagt gcttgaactt tcccattgga 1260 gtaggtcatc ttctgcttag tgatctggct gcatattcag ccatacagag taaggatcat 1320 gattgcgctg accgcacaag ccatagcgat aatcccatca agatcacata gaataagtgt 1380 attagctaga tatgaagcgg ctcaacggag acaggcatta tggaggacga gattgatgga 1440 ggagacgttt ccccttatta gtatatggac tccggactgg aatgaaatgt cacgtgatag 1500 gaagetegge cagettgaet gaegeegeaa getecagatg caateataet ceateateae 1560 tetgaeetta teececateg catettetat ateteggega geeteggetg tetteatatt 1620 gctgataata acataccttt tgtccgctca attccggccg tcgattatat cacacaaacg 1680 cttttcacca tgtccggagt cttgaaaccg gagaaggact tctccaaaga tgctgacaag 1740 ctgatccccg aagctgagca gcttgcaaag gtgcagactg ctaacgcttg aaagtttgat 1800 aaaataagtg ctgactgctg gtagacggat gtacaaggtg cgattgacaa gctgctactg 1860 ttggaaaaac aagcaagaca ggtatggcca agtcctgtcg ctgatgtgtc gcggcctagt 1920 actaataccc ataacttcaa tagtcatccg atttgcctac cacttctcga ttactcgtaa 1980 ctatcgtcac aatcagcaag aacactggtg actggaacct gctcaatgac caagtcctcc 2040 ttctttccaa gaaacacggc cagctcaagc aagctatttc gaggatggtg cagaccgtga 2100

tgagtttctt ggacgagacc ccgaatatgg agaccaaact atcagttatc caaaccttgc 2160 ggactgtcac ggagggaaag gtcagtgcct aggcaaactt tctatcgcac aagcatttaa 2220 cataactete agatettigt egaagtegag agagetegig teacaegeat teigteteag 2280 atcaagaagt cccagggtga tctgaacgcc gccgccgata ttctttgcga actccaagtc 2340 gagacatttg gatcgatgac gagaagggag aagaccgaat tcatcctaga acaagtcgca 2400 ctctgcattg agcgtggcga ttggacgcaa gcgacagttc ttagccggaa gatcaataaa 2460 cgatacttcg cccgaaagcc caagaagagc gctgaggaga ttgagaagct caagaaggag 2520 gctgaggaaa gagaaaagac ccgcgcaccg gacgaggctc ctatggaagt ggacgacgac 2580 gtcacggacc tgaagcttcg ttattacgaa cagcagatca ttcttgccaa ccatgactac 2640 aaatacctgg atgtttgcaa acactacaga gaggtgcttg atacggattc ggtacaagag 2700 aatcccgaac agctacgagc ggtaagcttg ctggccgcca caaagaagtc caacatgtca 2760 gaaactaatt catagtcagg tccttgcgca cattgtatac tacatcgtac tatcgcctta 2820 cgacaacgag caatctgatt tactgcaccg cattcaacag gacactagac tttccgctgt 2880 teetgttgaa atettgtetg gtgaagetet ggtetgteae cataettatg.egetggeeca 2940 ttgtttcgga gcaatttggt cctaatctgt gcaactctga tgttttcagc cctaaacgga 3000 gtcagtctgc cgaaaaccga gccatacaga agatggcaag accttggcaa gcgtgtcatt 3060 gaacataatg tgcgagtggt ggcaaaatac aacactcgca ttcagatggg ccggttgact 3120 cagtgacaga accttaccga gaaagaaaca gagaagtaca tcagtgaccc gggcacgtcg 3180 tagacataaa cgcaaggc 3198

<210> 896

<211> 3955

<212> DNA

<213> Aspergillus nidulans

<400> 896

accetgatgt tgcattettg cegeeggeag aagateagaa ggetttgtgg gageacetea 60 gcacgatega tatettetea attggeagea tteettacea gettgetgge gagaagggat 120 cteeggeege eggtateget gaggetetge etetgetgt caetgetgte teegaaggee 180 geetgaetgt tgaggaeate attgetegte tgtaegagaa eeccaagaag atttttgage 240

tgcacgacca gtcggacage tcggttgagg tcgagatcga tcgtccttat ctgttccaga 360 gcgcgcaggc ctggtcgccg ttcagtggca agagcgtcaa gggccttgtt cagcgtgtca tcttccaagg gaagacgtct tgtcttgaca gcgaaatcac tcctgatgct cctaaaggct 420 cggatatgtc tggtcacagg attgtgcctg catctccatc cctcaaggcg atgtctccac 480 gggttgatgg tgctctagac cgtaggcagt ccatctccat tgccggcact cctgcacggt 540 600 tgggacgcaa gcctgtggat cacttccctg ccgccactgg agccgaactt ggtccgcccc tgtacacccc tgtgcctcgg gcctcttcgc cgttgctaca gatgctttct cggtccccct 660 720 ttaaacaaaa gcacgtgctc tctgtcaacc aattcaacag agctgacctt cacctgcttt tcaccgtggc acaagaaatg cgactcggcg ttcagcgcga gggcgtcctg gacatcctga 780 agggccgtct cctgtgcact ctcttctacg agccttccac caggacttcc gcctcgtttg acgctgcgat gcagagactt ggaggacgaa cgatcgccat ctcaactgag cactcatcta ccaagaaggg cgagactctg caggacaccc tccgtacact cggctgctac ggagatgccg ttgtcttgcg ccacccagag cccagcagca ccgaggttgc tgccaagttc tctcccgttc 1020 ccgtcattaa cggtggaaac ggcagtgttg agcaccccac tcaggcgttc cttgaccttt 1080 tcaccatccg tgaggaactt ggaactgttg gcggtctgac catcaccttc accggcgact 1140 tgaagtacgg ccgtcctgtc cactcgctca tcaagttgct ccaattctac gatgtccgcg 1200 ttcaactcgt tgcgcccaag gatctgtcct tgcctgcgga catccgccag caactgctcg 1260 caaccggtca gctgctcacg gagtctgagg agctgactcc tgaaatcgtc gcccgctctg 1320 acgttctgta ctccactcgt gtgcagaagg agcgcttcgc cgaccttgag cagtatgaac 1380 gcctcaagaa cagtttcatc atcgacaacg ctctcctcaa gcacgccaag agccatatgg 1440 tegtgatgea ecetetgeet aggaatgeeg aagtttetga agaggttgae ttegaceage 1500 gggcagccta cttccgacag gtgagtctcc aatcccgtgg ccctagtagt gagttcgaca 1560 tgctaatgtg gatgcagatg agatacggtc tttactgccg gatggccttg cttgcactga 1620 tcatggcgcc ttagacgtat gccttgggcg actcttatct atgtttctat agattcagcg 1680 agcaatteet gtttteteeg eggegaegae tgtatttgtt atgttttttt ttgettggte 1740 gatgctatgt ccaaaagtta tgcagagtta tataccttgt agcactggcg aggcagatat 1800 aggecegtea ggtagattag atgaatetee etttatgaae tegatgaete eegteatgtt 1860

tatggttatg ttatgtgtga tgtatatgtg gtatctgtat ttggtgtcat gtgtggttta 1920 tgtgtggcgt atgtatggtg ttctgcgtgt tgtgtatggt ttgggtgttt tgttttcgtt 1980 tegtgttttt ttttttette ettttttet ttatetttt cetttatttt tttaaceett 2040 teettettet etattetggt tigeattiga gegegggata teiggggitg ggaatatigg 2100 actgaatttg ggtcgggatc ttgcactggg acatggactg cttttggtgt tgaagcgcat 2160 ttggcaatag atggaataga ctgggtttgg gtggaattgg tcaacaagga acactaattg 2220 tacattatto toccaatatt otoccottga agaataattt aattoatgoa taatoatgit 2280 . cgtccctata aacataagaa atgaaaaagc acagaggtcg attgatttgt gtgcggcggc 2340 tgatgttgat tactggctgt gctttcgtaa acactctcca gctcctacct acgctcatcg 2400 gctcgctatt tgctccaagg ttactccgct cccaaatgga aaatgatccc aacagtttcg 2520 cgcggcgggg tgacgactga actgcaccgt ccaacgagat gtggtctgag atcttgcttt 2580 atgctgaatt ccttctaatt aacttgggta tagttcagaa taaggacttc ttggctatgg 2640 ccagatgcaa gattcacccc ttggctagat cctacatcgc tcaggcggtt cggctggcgt 2700 acctgageta acaacgeete geatetacee tggeategtt caaccaacag gaacegaacg 2760 tgacgaagcc cgacgcgagg aaaactagcc tagaacaggg acagaagacc gccatgagga 2820 ttattgcgtt cgatttccgg cgaagtggaa tgggtttagg atatattcat ttcgaccaaa 2880 ccgcacgtgg tggcatttcg ctagccgaac ggcgcagttt gacgaattta atctatttcc 2940 acgactcagg cttgacgtct cccccaccgt cagcacctag cggccataat cttctttgct 3000 ctaaatcagt ccccgtcgtt atcgtcgcga tgcacgattt cccagccggc tagacgtgcg 3060 gagggtcctc ttgagtataa agggtcggtt ggagacgcgg gattgccatc cttcctcagc 3120 tgatactcca atctcgctcg ttcagaagag acagcaaaat gaaacagacg ctcatctggc 3180 tgataagtct agcttctacg ggatatgctg cctcgtttga cccgttggaa catctgggtg 3240 ctagttetee gtggtttget ggtatteege ceaaggeett atetageeea geatteaetg 3300 attgcgatag gtccgaatgt gaacaaaata tcctctgata tccctgatgg ctgctcggtc 3360 gaccaagccg tttatgtcgt tcgcacggta gcagatatcc tgaccctggt gcctatgagg 3420 agtggcaggc cttggcaaaa accggtaatc tttcccaaaa gggtccaatt tttaactaaa 3480

ctaacgtgga tgtgtcggca gatccaatcg gccactttcc gttgcctctg ggtctttgaa 3540 gttcctcccc gactggaagc ctgttttgag tcacccagaa gagcaaatcg ctcaggtgtc 3600 tataacaggc tacaaggaat tgtgagagct gtctaatacc acagagaggc agctgtgctg 3660 actttttaaa aaggtataat cttggagccg atctgcgatt ccggtatcca acattctaca 3720 aagacaacac tccgttcttg ctttgggcaa accagtacca acggacagtc gattctgcta 3780 ggtgagttat agctcagctc catgcgtgt cagatctgac aagaccaggc tattcgtccg 3840 tggttaccta gggcccaatt catcttatgc cgacatttac gcgatcgatg cagacgccgt 3900 cggtgcagca ggtaactccc tggcgacttc agatccctat agtagtcgta tatcg 3955

<210> 897 <211> 2350 <212> DNA

<213> Aspergillus nidulans

<400> 897

atcctacact aattaaccgg cgattggttc tgcagcgtgt ccggcagatc ctggagtatc 60 tcaagcagcc accctaccct gacattcaca gaacagttca gatatttgtc aactacgctg 120 gtgctctcct cgcggaacaa gacctatgta acgaccatgg tcaagcgatt gccgctcaac 180 cgtcaagaac tccggaggtg aatagcacgc ctaggtcgga gttcaccacc agcattcctg 240 agcaagctgc tgagaaccca atgatacgga tggataagga cacggatctg accgctcctt 300 tgccatcgga gtcgaggcct gaaccagttc tgcctaggct tctgggattc gatatcccaa 360 actggaatct aactgcaccg atcgccgact cgtttgacct gtttgaggaa ggccaaacag 420 acatctttga ctttcttcct gacctatgcc ggacataacg ctgttgatca caatgacgag 480 gaatagcaca tggatatgtg ttgcccattc ttcccaatca agtacacatc tgaaagcgaa 540 gcgcagcggt ctctcctgaa aacatggccc agaacccaga agaccaatag atcatcggtc 600 acaggggctg cgaggtgcat tacaactgca ttacgttcca gttctccaat agaatgcata 660 720 cgtggtcgct gggcaaagtc ggtttctgag gtgttgagac cgggccctgg atcggctccg ategggaceg geaceggege egactetage geaagaaace gtgttatatg ateaateeta 780 840 tttggagaac agttcaaaca gggaacagag gcagcatatg catgcgtctg gacaggccga atttgaattc atgagtcaac tgcaatttgg cgtcgaaata agagatttcg atgcttcgta 900

tttaaatcaa cccggacggg tgattatagc aattgtccga ccacaaccaa aagcactagc 960 acgatggatg aaaagaacca cgttcctcag cctgagacgc acccgcgtgt tccaccgtca 1020 ggtatgctac tcagcctcgg cccttaccta tactaacatg gccagggtca aatgctccac 1080 agcetaggtg taatacteca eccaegeege egtecaetee taegatagta aetttegagg 1140 attgcccaaa gaagaacccg tacaaatggc cettetegaa aaaggtetat gteettgtat 1200 tracattact atrogetrate aatagregete treering et croccaage aatgreete 1260 cttatatcat agatgatttc aagctgcaga atacaaacga gagcagtcta ccaactggca 1320 tttttctgtt gggatatgtt gtcgggcctt taatatggag ccccctaagt gaaaccatcg 1380 gacgacgtcc tgtcctgctg tatacgttca tattcttttt tctattcacc cttgcatgcg 1440 cccttgcccc taattggtcg tcacttttat tctttcgttt catgtgcggg agcatgggtg 1500 cggctccgag actgttatcg gaggctctta tgcagatata ttcgaggcta aagcaagggg 1560 gagagcaatg gcgttttata tggccgtagg tccctcaacc ctaatagctc gctcgctgct 1620 gactgtgact aggtagcgag ctttgggcct atcatagggc ccattatatc tggtttcgca 1680 tccgagcatg gctggagatg gagtttctgg gcggatttga tatgcgctgg cgtcaccctg 1740 gttggattga tcttcttgcc aggtacgttt tctgaccacg ccctgaaatt ataactgact 1800 ggacactaga aacattcggc ccggccatct tgaagcgtca cgctgcagaa ttgagcaaaa 1860 tatctggcag ggagatgtcg gccccgtat cgaagttcga taaagacctc aaaaccatct 1920 tecteeggee gatgtatatg ttgatetttg agecaateat attgtteaeg tegetataeg 1980 teggeatagt ctatgetett gtatttttet aetteeagge ctaecegate atetteeceg 2040 aggtetacgg ctttaccate caaacageet eteteacgtt cettecacgt atgetttace 2100 aatactccta agctcaccca tactaacgtg gactcttcag ttggaatcgg cgcggcctcg 2160 actgccctcg ttgccataac ctgggactcc aagtattcgt ccgccctact ccgcagtaaa 2220 cgcaaaatct ggttcttccc cctatccttc agtcccgaaa cgcaccgtct accaatatcc 2280 tgtgttggga gcatcgcaac aacaaactcg cacttctggc ttgcctggac cgccaatcca 2340 acaatccact 2350

<210> 898

<211> 5725

<212> DNA

<213> Aspergillus nidulans

<400> 898

gaggcagctt tgcttgacgt tcgagttgtt gcagggaggt cgcgcaaacg gaaaacgaga 60 atgccgacca agtgtttatt gttgaccagg taccggcctg tgtgccgtta ctaaagatgc 120 ttggtccgcg gtggtttgct tcaaagggaa aacaacgcat cctcttttac tgtcattttc 180 ccgaccaatt acttgcgcgg cgagatggtg ggtctgcttt actgcaattg ttgaaggggc tgtaccggta tccttttgac tggtttgagg gatgggcgat gagtgcgagt gaccgggttg 300 ttgcgaactc cactttcacg aagagcgtgg tgagaggtgt ctttggggca gagaaattgg 360 gtgatgtacg ggttgtctat ccgtgtgttg atacagcggc gaaagagaag agtgagaagg 420 atgtggggac tatctgggaa gggaagaaga tactcctgag tgtgaatcgg ttcgagaaga 480 agaaggatet tgegetggeg ataagggeat ateatggget tggggaaaag aggaaggggg 540 taagattggt tattgctggt gcgtgtcttt tatttatccc cctgtgctga tctcctcgat 600 ttggtgctaa tggtgacatg gataggcggc tatgaccctc gcataacaga aaatgtgcaa 660 taccacaaag aacttgatgc cctcgcaaca agcctcggct tgcaaaccgc cacatcgaag 720 780 acceptccept etgecetete cateccetee tecategacy tectetttet tecetcagty tectetgeet teegegacag eteetggeta aateeteget teteetetae acceeggtga 840 acgaacactt tgggatcgtt cccattgagg caatgcgcgc ggggattccc gtccttgcat 900 cgaacacggg cggtccgctt gagacgatcg ttgaagggaa gacagggtgg ctccgtgacg tggatgacgt cccagcttgg acaggtgtca ttgagaaggt gttgtatcag ttgggggcgg 1020 acgagetteg geagatgagt gtggeggega aggagegegt egaggetgag ttetegetge 1080 acgctatggg tgatagactt gagggggaga ttggggaagat gctgagtact gaacggagac 1140 agtttaatgg cgcgcaacaa gcattgttgc ttttgggaat gctgggggtg gtatttgcag 1200 tgcttgtagg gttggttctg gcgtgggtcg gttttgtata ataccctgct tagctattct 1260 atttetttet ettaeggaca attagecata ttgetggaca aateatggtt attatttgtt 1320 gttaaaaagt tgttaaaagg gtctcctggt tggtactaac cctgatagtc aatgatcagg 1380 tecteggege ttaacegaea getgetgtee attecteaeg aegtggaace aacaagaage 1440 atgcaatgaa actgcgccgc ataggaaata ctattaggcg tagaatctcc atcgctgagg 1500

cggctatgaa gctattctca ctggcctact tgataccaag gccgaccctg aaacacacgc 1560 catctagtct gatcatagat aacttcatca gtctgcgcct cctcaccgta tcccaggtat 1620 tatttctgag tccctcgcct ctcttctttt agaatcgagg cttgaattga aagggctgcc 1680 ccagcccaga ggatatgaag aaatgctcct caatgtcgct cgcgctccta tggaatcgaa 1740 ttctcatctt catcctgctg cttagcacat tacctcgcaa tatactcgca agagtcgaca 1800 catattcaga ctcaagttca tcggcaaaga catattttac aaatcccccg tctaaccccg 1860 acttggaggc catcccaacc ttcgaactcg gcagcgtcca gaacatcgcc tggacgacga 1920 atctcgactt ctacaacatc agcatctggc agcgcactac tgggaatgtc tccagtcatg 1980 aaggtgggaa tgatggcgag agcgagagtt taaatatcaa tatacaaggg ggtaatattt 2040 teggtaegte caccactatg tacagaacag tgaaatgeag tetagaeaaa acaactaatt 2100 gtgggaaagc ccaaaccact gcggacgaaa gagtgaatac ctttgcttgg gtcgtacaga 2160 cgtactcact cgacctggcc ctctcatcca ttttctacct ttccattgag ggagacgcta 2220 catcgacgtc tagagacttc aatatcacca cctcgccatc atcttcatca tccaactctt 2280 ctaataccgc atcctcagcc ccaaatccag catcgacaga aacttcctcc tccctaacct 2340 caaccggcaa aatcgctctt gggctcggtg ttggcgtagg cgcgccatta atcaccctcc 2400 tegegatect egegtaette eagtategga gtgggagaeg egegtatatg etaacagaat 2460 ctcagtccca gctatactct cacccacctt ctggacttgg tctgggtctg ggtctgagtg 2520 gcatgggcta cccatctccc tcagccccag ctccagctcc agcaatagat caacccgcag 2580 tgccctcgtc aataccaacc ctatatcgga acccaaatct aaactcggtg caatatcctg 2640 cagagttaat gccgaggtta acgagaccag ttcaggtgca accttgggaa atcgatgcga 2700 atcogcggtt ctattctccc actcctgctg catctgcacc tcaaccgcca ccattaagtt 2760 tttcaggtga acgttcagtt ttagccatag atgagaatgg gagtggacat gagaggtcta 2820 tgtcgagatc taccacaaac agcaatagaa atagtacaag gtctgcatca agttcaacgt 2880 cgaggtegge tteetegtea getagggete ggtecatgte caggaceagg ggagetagag 2940 ttggagttgg gtctggagca atagagatac cggagttacc tggagaaagc tataatttca 3000 tttgaatctg aatgeegaat acegacacte catetatatg tatatattet etaettgtgg 3060 aggtccggtc tattggatat tgctgcatga catgggcggt tccgactcac aatctgtata 3120

tagacatgcc tgtacatcaa cgtccaaagc gtaattttgg tccatctata tccgtactgc 3180 tgaagtacgt acttgatagc cgcaaggatc atcttattgc atgaataccc tttcccgata 3240 atctgttcta gctaatgggt taacatgtct agaattcctt tcattgcccc gtttaggatc 3300 cctaaacctt caccaatgtc aggatcgtat gtaaatagag aaatagcatg gttcttcttg 3360 gtatataatc acggttggga aagttatacc tccccgttcg agcattgcaa gcatcattct 3420 aacactgata ctgtccggat acggtcgagg gactggatct agcagtattg gctgttttgc 3480 acactgctcc tcgccttgaa gcaactgaaa caaagcagcc gttgagctca cggtctgagg 3540 acaacttgtt cctctggcag atgtgctagg gcagttgttg gagcgaacat agcacgagaa 3600 atcaaagtac atggaacatc tattcagagg acgactcgca acctgctaag aagcaactag 3660 tattcctact gcctaaataa tcagctgggt cgacagcagg taggccagaa attagaaatg 3720 tcaaactcat gactgcagtc aatcctgtaa tggcacccct gcagtcccag ggcttaagga 3780 gcctagacgt cagtcacgtc gcgcacagcc tccactctat agcaaagcca aggccaagtg 3840 ctcattgcag ccttacaaat gatagccctc ttgcaggagc tagtctccca atcaaggtcc 3900 gccgatggca cgtatttccg cgaacaagaa tatcgaggcc catgtaaatc ctccatctct 3960 tctacaaaga tcctcctgga cgccattaaa gacgatgatt accggaaaac tagctaagaa 4020 tgtgaccgtc attcatgtat tggtcaccct cacatcggtc caggaacagc agggccccat 4080 ttgctagatc atgaatagtc tagactttaa ggatcgcacc aatagagagc atggactgcg 4140 gccaatacag ttagggctac tactcggctg cgtggtcaga atttataagc atgctagaga 4200 gcaaattgga caacagtagt ctgcagcttt caattggtct actggatacg tatagtattc 4260 gccgatgttt acgaggagca ctgtgcacag agaaaggtat aaaggcgcgc tggtctcgcg 4320 ctctccatcc acctccacgc ccatctcacg ctcatgaagc atcccaatca agtctccaqa 4380 atagccatca gtcgtcccag caagatgaag ttgaacctca actccctcct cgccctcacc 4440 eccetecttg gteteageea ageageegae tgeattgtee ecaaceaaca agtettetee 4500 caagcagcgg tcgagatgat gtggtccatc cgcgcctggc tgtgtcccaa cgcctggaat 4560 cagtggatct tcgcgtatcc agatagtgcg tggtgcgacg caggtggtgg catcgtcagc 4620 gcgttctacg ggtcctggga aatcctcggt atgcagagcg agcagcagtg ctgggtgggc 4680 ttttcatttc ctgcatcgtt ttaggtgcat tctgtcataa tgaagctcgc taatgagggc 4740

aggatatcac tgaggaaatc atcaaccaat gcatgtggta cggctttgcg aagcacaagc 4800 tacaacggtg gaacttggtc gtacggcgat atctgggccg gcggctggtt ctgggcggat 4860 aactcgcgga gctgtgtgca tcctgtcaag agagatgcac tgcctgttgc ttccgttcct 4920 gttggggata tcaatgctga aatgaacggt accacccttg ctgatgggat gagccaggtc 4980 ggcagtcgac tatggctgga tttcagtccg acgaggtggt tgttgttgag aaggaggagt 5040 tttagttcca ggaaagaata ggcaggattg aaagcttcca gaggattaag agaggcttgg 5100 ttggcccatg ttgtgatagc agagtggcta taatgagcga ggcatctgaa gtcatagaga 5160 agcccgtgtt gtcccatctt agcaacgata acgccggcga gagcgatctc ccaattctag 5220 agcttgtctg accaagaagt acactcccat ggtcaagcac tctagccttt tttcattgcc 5280 ttgtatcaga gccgtaggct ttgcgattct gctcgtttct tttctattgc tctcgtcagg 5340 atggtctgcg catcgtcatc acacgtttgg aaataacggt ctaagcctgc gattattttc 5400 ataagcctga ttagacgagc accaggagct ttgtcttgga tcgttgcagc aacgctgatg 5460 agttttcctc ctataaacga tagctcattc tttgcctata catccagtac ctgtcgctga 5520 gtggccaggt gatcataaac aaggctgtgc accaaacagc aaaccgcctg taagctcgtc 5580 ttcgatgact tgtgacgtat tacattcatc agactgggtc gcgcttttaa gggcagacgc 5640 gttatatcaa tcaagtggac acagctgcca gctttaggaa tttccaattg tctcatgctg 5700 tatgcttcgg ctgtcgaaaa ataga 5725

<210> 899 <211> 812

<212> DNA

<213> Aspergillus nidulans

<400> 899

tcactgacgt cgacgctggc ggagttactg gatgcgcaat cccgaccaac cgtttaaggc 60 gcctatgcat caattaggcg cattgtcagt ttcagcctcg actgagttgg tgatttgtcc 120 cggccgataa cgcaatggga aagtgtttgt caaaagcatt agggtgagtc ttggctacag 180 ctccttaggt gaggccgcaa tgattgctca tatttgcgac atccaggcga ttgcagtaca 240 cctgtgattt catgttcatt gcttaatagt ttgctctgca tactgagagt cgagacatag 300 tctgtacgat gttccatcct ttgacgactc catcgcgttt ataagcagat gcacaaaccg 360

gcgcccacgt agtatgtaag caacgctaat ttgggccgcc gaaagtcgtg agttgcagat 420
atgctaggct gtctataaag acatcgtcta tttctgccaa tgtctaaata atctgcttga 480
tgtttgttgc agccctgaat aataagtcat gaatgcctag tgacagcatt ggcttgacta 540
gttcgtcaag ccgtggcttg gtggagattt caggccacag acgaagtgat aggaactcgc 600
ctgtgcctca acgcgcgatc cctgcgcagc ggcaggacta gaggccaaga atatgaactg 660
tcgaaccagt agcgggctac cactgttcga gtgtgagaga cgtcgagtca gtcagtcaat 720
gggggtaagga tagtaaccag tttcataacc atcacaatga ttaacctgta gagcagatac 780
gcccattcat cttctgtata ctctgatgac tt 812

<210> 900 <211> 8926 <212> DNA

<213> Aspergillus nidulans

<400> 900

gacattetee ggtegeaatt caaaggeatt gacaataaeg aaaataatea tgaatggget 60 taaggcaact gaaaggttga ttatcaatcg cgggctttct agacactttc aaccgtcgta attttcggcc actctgggcg tatggattgg taaactggtt acagagccga tgtcgggggc 180 ttgaagtgtg actgcgcaag aggcgctcac aaagcacaat atgcactcag tataagcatc 240 tgtattgatt gtaaaatgag atcaacagag aagaatccag agcttctgct aagaagtaag 300 cactaccagt atggagettg tttattgegg cagaategtg ggaagteagt tettattetg 360 tgtataatcc ggatatccgc tcgtaagtat aatacacagc tatagatggc tttcaaagat 420 tcggccacgg acggaagcca caaattcaac tcctacaaag tgctcgatag ggtaggaatc 480 aacatgccaa cgcatagtgg ctgcaatgcc gacgagactg agggagtgac tgatggtcac ggtcctgacc tcgaggcgaa gccaccaagt aacgaacctt gaaatgcagg ttccccacag 600 tgggaaaatt ccgagggcgc tcggcgggcg aaatttttct tcgttgccgc tggcgcttgg 660 atggaggagt catcategee tgtgtettea ttggagateg teegeegeee tegaaateee 720 cgcccacttt tcttccctcc taggcctatg actcttttct ctgctttcct caaccgcaga 780 gcatataaac acctgaattt gcccctgggc ttgacggtta gtatcctcaa cttctgccat 840 tttccatcaa ccttgttaag tctaacttgt cattcaattt tagttcttat tttcatattt 900

gctcgcatca aatatacaaa cctaacccca ccaccattca cacacaatgt gccctggtgc 960 agacaatgag cccaatgggc aaacaaacgg cgtcaacggc cagtctaatg gtattactgt 1020 gaatatgcat tatctacaga ttcaatgcta attttttttc tttcaaggag accacccacg 1080 gtttcaccgc ggttcagacc cgccagaacc ctcatccttc ccgtaacccc tacggtcaca 1140 atgtcggcgt gactgatttt ttgagcaatg tctcccgctt caagatcatc gagagtactc 1200 ttcgtgaggg cgaacagttc gccaacgctt tctttgatac ccagaagaag attgaaattg 1260 ccaaggcatt ggatgagttt ggagtcgact acgtgagtca tccagtgtgt attggtttga 1320 tgccacttac tgacggctgt tcgctctaga ttgaacttac tagcccttgt gcttctgaac 1380 agtcaagget tgactgegaa gecatetgea aacttggett gaaggecaag gtaagtteee 1440 attggtaatg agtcggcgca tacactgtct aatgggccaa atagatcctc actcatattc 1500 gatgccacat ggatgacgct cgggtcgctg tcgagactgg tgttgacgga gtgtaagaat 1560 tettecaegt titetagetg tettiagtae taateaggig taeagegaeg tegicatigg 1620 aacttecteg tateteegeg ageactetea eggeaaggae atgacetaea ttaagaacae 1680 cgccatcgaa gttattgaat tcgtcaaatc caagggcatc gaaatccgat tctccagcga 1740 ggactettte egeteegace tegtegacet gettteeate tacteageeg tegaceaagt 1800 tggtgtgaac cgcgttggta ttgcagacac tgttggctgc gcttctcctc gccaggtgta 1860 cgagctcatc cgtgttctga ggggagttgt gagctgtgac attgaaactc acttccacaa 1920 cgacactggt tgcgccattg ccaatgctta ctgtgctctc gaggctggtg ctactcacat 1980 tgatacctct gtccttggta ttggtgagcg caatggtatt actcctcttg gtggtctcat 2040 ggctcgcatg atggtcgccg acccccagta cgtcaagagc aagtataagc tggagaagct 2100 taaggatatt gaggacettg tegeegagge tgttgaggte aacatteeet teaacaacta 2160 catcaccggt ttctgtgcct tcacccacaa ggcgggtatc cacgccaagg ctatcctgaa 2220 caaccccagc acctacgaga tcatcaaccc cgctgatttc ggcatgtcaa gatatgtgca 2280 cttcgcgtct cgtctaacag gctggaacgc tatcaagtcg cgtgctcaac agcttaacgt 2340 ccacatgact gacgatcagt acaaggagtg cacggccaag atcaaggctc ttgctgacat 2400 ccgacctatt gctattgatg atgcggatag catcatccgt gcttattacc gcaaccttag 2460 ctccggcgag aacaagcccc tcatggatct gactgccgat gagcacgctc agttcctcgc 2520

caaggaaaag gagcttaccg agagtggcac cgctctttaa gggcgttccg tttcctattt 2580 tcaaaacgat ctatgcatat ttgctttgcg ctatgagcta ttcctgttgg aatatggtga 2640 aatttttaca totatttatt tottttooot agagotttga toatattooc tgagogacto 2700 cttttacgaa gtgagacgtc gatcttcctt tgtcttgtca tgattggtgt tttttatgtg 2760 gtctgggata ttttagttta ccttgggggt tcctaaaagt gttatttctc cctcagccat 2820 gagcacgagg taagagtggt cggtgtttgc gagctttgat ttttaagtaa gccctgtata 2880 taagctgtct cggcgattac attaaatgaa agagtcaaga aacaaataca atcatctaca 2940 aatcattttt ggattaggca tggaccgttg aatcaatata caatagtgat atgacttggc 3000 aaaaatttat actaagatat gacggataat cttcgacgcg ggcgacgtca cgagattccc 3060 tccagtcgga cgaggtggca tgtggaacct acagccgagg tagtgtaagt gtgtgacggt 3120 acctttggcg cttcgagaag ctctgctctt caatcaaaat tactccgcag acagcaacta 3180 ctatcattgg ggctaacagt caccagtcac aatcgtccct ggcgtgcttc ccgcacttcg 3240 ctcattctat ttccttgact ccgacatccg aatctctcca cttcaccact ttcatcgtct 3300 tattettate ategaagatt teacetatte cateeatact etttgtettt getgagtgag 3360 gaggagtaat tgaggatcac cggaggaaga atggcatcgt ctgtcgtgcc agtcgctttg 3420 cagaacaaac tgcttggcta tggcagagcc cccagcgccc agctggctgt tctgaacctg 3480 gacctgtaag tacaggette tetgegeeet gaggeeetgg atgtttgtta tetaatateg 3540 tttctatgcg cgtagtgttc gcaatattgt atttgctcta ttcttattcc gctacgttcg 3600 aaaaacgttc tactccctgc gaggctacgg tttcttcggc agtattcaca atgtctacct 3660 agccattcgt ttatttttat actctatctt tttgcggttt cccggagtcc gtggacaggt 3720 cgacaaacaa gtgacggctg cgattgaggg cctagaatcg aaactcgtgg caaacggccc 3780 cggtgttaca cgatacctga ctctgcccaa ggaaggatgg acgcacgagc aggttcgtgc 3840 ggaactaget aagettggga acatggagea taccagatgg gaggatggte gegttagegg 3900 tgccgtgtac catggtggaa aggacttgct caaaatccag gccgaggcat ttgagcaatt 3960 cggcgtcgca aatcctattc accctgatgt ttttcctggt gttcggaaga tggaagccga 4020 ggtggttgcg atggtaaatt atccttttca gatgattgag gactgcgtcc aatgacttac 4080 tgggcttggc ttaggtcctt gcaatgtttc acggcccttc tgatggcgcg ggggtgacga 4140

ccageggtgg tactgaatee atecteatgg cetgtttgge egeaegtaae aaggegegeg 4200 ctgaaagagg cgtgacggaa cctgaaatgt gagctctcga atctttctct tttctggtat 4260 tctgctgact caaataaagg atcattcctg atacagctca tgctgcgttt attaaggcgt 4320 ctagttactt tggtatcaag ctgcatcgtg ttccttgccc agcgccagac cacaaggtcg 4380 acategecaa ggtgegeega etgateaact ceaacacegt tetgettgtt ggetetgete 4440 caaacttccc ccatggtata gttgacgaca ttcccgcttt atcacgactg gccacacatt 4500 ataagattee tetgeaegtt gattgetget tgggtteatt tgteattgeg ettetgaaga 4560 aagctgggtt tccgtcgcct tacgaggagg aaggcggctt cgattttcgc caaccaggcg 4620 tgaccagcat tagcgtcgac acccacaagt atggctttgc acctaagggt aactcagtcc 4680 ttetgtaceg caacaagaeg tacegeagee accaataett catetaceet gaetggtetg 4740 gtggtgtcta tgcgtcccct tcggttgctg ggtcacggcc tggtgcgttg attgcgggat 4800 gctgggctag tctcatgagc gtaggcgaat ctggctatat caagagttgt cttgatatag 4860 ttaatgcggc gaagaagttt gagtcagcta tcaatgagga cgcacgcctt tcgccaaatc 4920 tccaagtcgt tggacaacct atggtcagcg ttatagcctt cgagagtaaa aatgatgccg 4980 ttgacattta cgacattgcc gatgaccttt cggcaaaggg ttggcatctg aacgccttgc 5040 aatctcctcc ggcaatgcat gtcgctttca caattccaac agctgctgct gttgatacgc 5100 tcatttcaga cttggttgcg gtggtcgaaa aggaactgga gaaggcggaa gagcggaagc 5160 gacagggcaa atcttatgtc gtcaaacgcg gtgatacatc tgctctctat ggcgtggctg 5220 gaagtatgcc ggataaaagc atcgtcagtc gccttgcaga aggcttccta gacaccttgt 5280 acaaagctta gaaggatcct ggatgattat aaaaccgttg tctgttgata tgcgtgatcg 5340 gatcagggcc ttgctggact tcacataagg gtatacggtg ttctggtgtt tctattgata 5400 tcctgtggcc tcggtggcct tgaaagatta ttcttaccat gccgttagag aagacgaatg 5460 tcatcaaaat ctgaatgttc gaggacctca taaatagtag acgatagaca tatagtacag 5520 tgatatagta acategetea atgeaateag agtageegge ateaatgtee tettateeeg 5580 ccctctccta catatggcgc tgaaaattct tccagccagc caagatcatc gatggtcgca 5640 acccaactcc atggtaccca attgagaaaa gacatcttaa catgcaaaaa aaaaaaaaga 5700 aaaccaaaga cccaaacaag gcaagcgaga aatataggct gtctattctc ccctcttctc 5760

agtectetet ategeegetg tietetegae ataataeeet ggateagget tiegeteeag 5820 atgeagetet tgtttegtea aatttttate aactteetge aceteaacea gtteetttae 5880 tttcatgatc tgaccggcta ccgactgaga gacggggtgg aaaacggtgg ccatgcgctt 5940 ctttagtccg agagccttga gcacgtctgt tgttcggcgt gggagaccga tggcggagcg 6000 gacgagggtg atgcgaaagt agctcatctc gaatttgttt tctccctttg gttgtagctg 6060 gtcctgggtt acggcgagga atgaaacggt cgctcggcgg ttaagtccgc gcaatagaag 6120 atagtggaat ctggctggaa atggtgtgct tatgagttgg tcagatcgtg agcaagagca 6180 gcggtaattg cggagcgtaa tcggtttctg tgcagcaggg ttgacagcag actgagccta 6240 ggatattggt tetegeegae aaaetgttga gtgatgegae tgetgeeeag aaattttgte 6300 ttttcctgtt ctggtcgagc ttccaggcgg aatgtcacgt gaaacggcat actgccggtc 6360 ccagctcgcc tggagacacg cagctcaagc tagctaaacc ctatcggaac gatgaattga 6420 tgcctatctg atctgattga actttcttgc cattctgctg gtatagcacc taaccaagat 6480 ggcgcaaggg ggaaatgccg acagagcggt ggccatgccc cggttagagg acctcctccg 6540 acacceggag gacetegaca agateaatgg actgaaagee gaatacacae geaagaaage 6600 tgcggtcgat gcgcagctcc gtgagggtct tcgggatcag ttagcatccg tacaacgaag 6660 cctcagcgcc ctcacggaag gccagcgcca ggtatcaaag acgagggatg agctacaggg 6720 tatcgacaga ctatgcgccg agtcgcagaa cagcgttgat gacttctcgc gaattgacca 6780 gctcgctaaa atccagcgca actttgaagc tactctgatg atgaagaaag gactggagaa 6840 ctttagctct gatttagcgg agattgagga gcttctgagg gaggatgacg aggatcttga 6900 gaaccageet aatetgetge ggacccatat geggatatet egattgeggg aetttegaga 6960 tgaggccatg gatcaagttc gcagggcgca ggacgcgagt aacgaggcca ccctagaaga 7020 atatttccaa gggctggatg ccgtaatcga ttggtttgat gaccatcttg ggacgctgtg 7080 tatgaacctc attccgctcg tgcagagtga taaccccagc atggtggttc gacttgcggt 7140 tgtggtggcg aacgaggaga agaatgatga gaccgttaag gccttgcagg aggcgcagaa 7200 ggatcaccag gatttagctg ggcggtttaa gtcaatgaat gttggaccga agaccgtaag 7260 gggatacaag gaaaaattta tacaagcgat cgagttctac gctcaaaatc agttcgaaga 7320 caccaaggag aaattettgg atgaccegga aggtetggag aagagtttee gatggttett 7380

taacgacctc ttcgtcgtgc agcagggcat gcagtcgttg atgccgaaga agtggaaaat 7440 cttcaagacc tacactgata tctatcaccg catgatgcac gatttcctga ttgagatggt 7500 caacgacccc gcattaccag ctgacaacct gcttgcgatc ctccactgga gggaaaaata 7560 ctacaagaag atgaagaagc ttggctggca ggcgtctgac cttgagctag atattctgga 7620 taaccgcgaa cctgatctca ttcggcggtg gcagaatgtc attattaacg cggtagaaga 7680 ttggatggat aagatcacgg agacggacag gaaggcactt acggagagga tacctgactc 7740 acttgatact acagcagacg gctacttccg cactcaaact cttccagata tgtggcgaat 7800 getgeaegag eaggteaeeg tgteeagete etecteaege eeegaeetet tggaaggtat 7860 tatggatgca atgttccgag tgctgaaggc tcgccaaaat gcctggcaga cccttctcga 7920 ggaagaatge getaaataca aageaceegg eggtgaacaa etagaegggt tgeaactget 7980 gcaagactgg cttatagcag tagcgaatga ccagattgcc tgcattgacg acaatgacga 8040 aacgggacaa tatgggcact tgacgcggtt ccgacgtgat atcgagcagt acgtcgaccc 8100 gaaatacatg gcgtcccgcg caattcccga gattgatgct ttacgagatg gctacgtcga 8160 tttgagtacc tactgtattt cgcaattcgt gaacgtaatt ttcgcagtcg acctgcaggg 8220 cacgattcgc gattttttta cccagagatg gtatggagat ttcgccgtga agcgaatcac 8280 ttctacgttc gacgattaca tggccgatta ctcgcctgtc ctccacccct ccctcacaga 8340 catectegic gaagaactet eegaegaact eetagteege taeeteteat eggteegeaa 8400 caagggtgta aaatttcgcc gacaaactga cccctacacc gacaaattca aggacgacgt 8460 cctcacagtc tttgcatttt tccagaaata cccggactct tttgcaggca ccatcaagca 8520 gaaatggcgg cttgtcgact ggttggtccg gcttcttgag gcagagaaag gtcctgctgt 8580 ggttaatgtc tatgaagact tcaagaatga gtactgggac ctgcagctct cgtgggttga 8640 aacagtcctt agggcacggg atgactttga gcggagtatg attactgccg tcaagactaa 8700 cgcggctgaa ttgtctgttg aacggagaat ggagactcta atgagtagag ttcgctgacc 8760 ttgcttgttt gtgccggtgg gcctttgccg ggcgtttgga gttgttttgc ttaacacct 8820 ggaccaataa tttacaatgt ctccgggctg ttgacatgaa ggcgggggtt cccattcaat 8880 tttatgtccc ccccgctgt ttataaaacc cgtcagaaac ggggat 8926

<210> 901

- <211> 1799 <212> DNA <213> Aspergillus nidulans
- <400> 901

ccgggcctgt gtgacggtag gcagcgactg tggctgtact acaccacggg ggctqactcc 60 gatgggactg acaggatcaa gatccacggg acgcggttct aggagctcta ggccctgtcg ctcgattgca tcgatcgacg cccgagaatg ttcttgctga agaagtatat cgatgttaga ggggcggcgg cggagtgtta tggtcgttcc tgtacttgtt tcggatcccg caccggcgtg 240 actgtggccg atgttcagtt tatcggaaat caagtggggt ttgcgaatat gttgaggttg 300 gactgccgat agtgatggtg aatttggtga tgaggaaaac gtgtagctgg tacttgtaat 360 cgcggtcgtg gagcttagta ggctggtcgg agacgatggt gagcttggtg agtagtattc attatcgttg gtgttatgat tgttcgtatt cacttgagta tgcggctgga aggaagtgta 480 tacgagcgag aggctcggtg tcgaaggttg atttggacgc atctcaatat agaagaaatg 540 aacctggtgc tggtagcacc gcgcgttgtt taattgtttt gtctgcgtgg ttaaacttga 600 acgagttggg ttgtgcctct agtagataga tcacaatata tgttgctcag ctcgtaatcc 660 tcgtatcgca gtcgctcaaa gatcgatgcc ccgcatagac tggagttttg tgccgacttc 720 acgttccagc taagagggga agaactccag acaacaaacg atatgcagga aaggtcagaa 780 ggatggttgt tgtgaaactc ggagtataaa gtcgacgcgg gttgaaacaa ggagccgtgt 840 ctgtcagatt agcaaggatc aagaccaacg cttcgaggag gcgaccaacg tagcagattg 900 aaggatcgaa aagacaggct ggtaacgagt gaatgagcga gtgtaagact atttaagatc gcccagttga tggacaaggg ttgcgaaggc acggattagg tgtccatgac aggctcgatt 1020 ttcggcaagg cacgctcaat ctagtagaag gtagtttcgc gccagggagc aagtaggaaa 1080 acgagatttt atgacatgat gggagatgtc atttgctcct tcgagaatgc aagctggtag 1140 tttatgaaaa cagcgacgga gtagagatcg agaagagaaa ttggaggttg agaagaagac 1200 gaagacgggt tgcggattgg gatcagcttc cgcatacggt gctctgctcc caccttctaa 1260 ggttcaaagt tacctaccaa tgatagaagc aaggggtgac aagagaagaa acatggaact 1320 tagcaaaaga taaacaaact aggttgtcta gataggactc cagcacgcca ttgctatgca 1380 tccaaggcaa aatattcaca aacaacttga agtctcaatg tgaaaaaata aacaaaatca 1440

agaacatcag gtatttaggc caaccatagt ctaaagtaca tagaaagccg tatagagtat 1500
aagagcatca agttcacgag catcagtagt cgagagttcg tcgtatcatc gctcgtttcg 1560
tctcacttca gcggcgcttt atttatgtct cgtcccttgg tcgttccctt ggtcgtcgct 1620
gcgtgaaact gcgacggata ctctcacccc acgcagaatc gcctagtgac tgcatcacat 1680
cttgcactgc catcgcgctg tggtggcgcg agtgctcaga ggtcgccgac gctccttctg 1740
agaaacttgg cggatcctag tattctatag tgtcacctaa atcgtatggt atatcatag 1799

- <210> 902 <211> 3110
- <212> DNA
- <213> Aspergillus nidulans
- <400> 902

ggccaggtgt atgtggacgg tgccacatga acgctcagat tggcctctgc tctccgggcg 60 aaattggtgc cgatgtctgc catctgaacc tgcacaagac tttctgcatt ccccacggcg .120 gcggtggccc cggtgttggt cctattggtg ttgcagagca tcttcgtccc taccttccct ctcaccccaa cagcgaatac ctgcagtcca aacgaactga gaaatcctcg ccgccgatca 240 gegetgegee ttggggtage gecagtatee tteetateae etteaactae attaacatga 300 tgggctccaa aggcttgacc cacgccacta agatcaccct cctcaacgct aactacatcc 360 tgtcacgcct caaagaccac taccccatcc tctacaccaa cgacaacggc cgctgtgcgc 420 acgagttcat cctcgacgtc cgcaagttca aggacacctg cggtattgaa gccattgata 480 tegecaageg tetacaggae tatggettee aegeceegae catgteetgg eeggtggeaa 540 acacteteat gategageee aeggagtegg agaacaagge egagetegae egettetgeg 600 atgeteteat etegateege aaggagateg eegeegtgga gageggtgag eageegegtg atggcaacgt cctccgaatg gcgcctcaca cccagcgcga cctcttggcg acagagtggg ategecegta caccegegag caggeggeet accetettee ttacettete gagaagaaqt 780 totggccctc cgtgacgcga gtcgatgatg gtaagcttta accccgaact ttcccgcctq 840 gacatgctaa ctctgcttct agcccacgga gaccagaatt tgttctgtac atgcccgccg 900 gtggaggaca gtgaataatt atgataccca tgtagagttt tgacgtttat acactttcaa 960 catccggggt ggctgttgtg gcattgcgag attcaacatg actatgatag atggcgttgg 1020

ggttttttct agccttggat agctgtgaat atttataaaa gttcaatatc ctaaactgcc 1080 agtaaactac cagctccgta cacgtgccat cggtccctta tcttatcctt atcgttatcg 1140 atagagtagt ateggtggge accgetggag egaateagae geaateggag geageegteg 1200 tctgccagga acctcacgaa gccaatgcgg agttcgccat ccgcgctgct ccaccctctc 1260 cgatataaag gcctcgacct tctctggtag cctggaaagt caccgaagtg ctgcccgaag 1320 ccgcctaggt cctaggtgag ttcaccctt gcggcgtccc atcgcacagc atgctgaccg 1380 catgacgcag ataagccacg cgctcacgca taaagtagcc cagacctctg ccaggatatg 1440 gaatctaaga tcactttgtt ttacggaacg tttgtggacc tccctcgaac caggtcaggc 1500 gagaagcatg agetegeaat cagacatggt gegatetggg tateategge taceggeegg 1560 atccagggat tcgactggag tatcgcaaac gaggcagagc tgcagtcctt gctcaggaag 1620 aaaggctgga ccggagtccc gataatacgc gcactagagc aagagaatga gttcttttt 1680 cccggtttca tcggtatgtc gatgtcatgt ttcgcctaca gtacgcaagg ccatgctaaa 1740 gaggaagaca gatacacaca ttcacgcgcc tcaatacccc aattcaggcc ttttcggctc 1800 gtcaaccctt ctcgattggt tggagacata tacatttccc ctcgagagct ctatgagcaa 1860 ccttgataaa gcccgcaccg catacaacgc cgtcatcttc cgcactctcg ccaacgggac 1920 tacctgtgcc tectactatg caaccateca tgteecegee acaaacetge tagegagtet 1980 ctgccacacc cgcgggcagc gagccctcat cgaccgcgtc tgcatggata atccagcctt 2040 ttgtccggac tactaccgtg atgaatccgc agaggcgtct attgagctta caaaagagac 2100 gatagcacat atccattctc ttccagatag tgataaggaa agtgagagac tagtcaagcc 2160 gattatcaca ccacgetteg ecceaacetg ttecaeetea geaettaeet egeteggeea 2220 getegetgea teccaeacte caeceetgea catecaaaca caeateteeg agaaceegaa 2280 cgaagtcagt ctcgtccagt ccttgttccc agaacacccg tcctacgccg ctgtctacga 2340 cgcgtgttcc cttctaaccc atcgcacgat cctcgcgcac gcggtccatc tcacccagcc 2400 cyaaaaaagaa ctcattgcgt cgcgaaacgc caaaatcagc cactgcccgg cttctaactc 2460 tgcccttgga tctgggttag cgccagtaag ggacctgatt gataatggaa tcaccgtagg 2520 cctgggtacg gatgtttcgg gcgggtatag cccaagtatc cttgaggctg tgaggcaagc 2580 ttgtctcgtt agtaggctgc tcaggcacag cacggcatcg acgtcgtcct cgggaaatag 2640

cacccaaaac gagacagaag ggagggaggt cctctccgtc gaggaggcgc tgtaccttgc 2700
aacgcgcggc ggggccgcag ttatcgacat gcccaatgag ctaggaggat tcgaggtggg 2760
aatgttctgg gatgtgcagc ttatccgact tggagcaaca gtccaggaaa cgccgcagac 2820
tggttctcat tccgactccc gctccgttgt tgatatcttc ggctgggagt cctgggctga 2880
gaaggttcat aagtgggttt ggaccgggaa tgatcggaac gtgaggcggg tatgggtggg 2940
gggtgcggtt gttcatgatc ttgatgatgg tagctgcgtt ggtgaggaga ccatgcttgg 3000
acgctaaatt ggaaagagcc ttcagcgaga ttggacgcgg tgggctgtcg caagtgtcgg 3060
ggtggcaata ctagggtttg ctatagggag gagaagccta ggttcacgat 3110

<210> 903 <211> 1407 <212> DNA

<213> Aspergillus nidulans

<400> 903

gtaccagtat agtaatggct atcataatta attactaact atgctatgtc tggtgttgta 60 agtattggtg catcgtcact ggcgtagggt atgctcacga acccttatac cgtcaccaat atatatttat aatgattgcg tgctggctgg agcacccgag tgttatgggt cctttgccta 180 tacaaggacc ttagacctta gtgacttcgc caaggcctgc gctgtcctga aggcggtgag 240 ccacctacaa gacttccttg caacaacaat ccttctttct catttcttct ttagcgattc 300 cttcttgtac gtacggcacg tctagatagg aagatccatc taaatacgtc ccttaacacc 360 gagggtcgaa aaattaccca caacgatcct attcagatcg actcctttcg cactacatat 420 aagccagaga caactaatta gacacagcgt ctggaatgca gcaaaacatt ggcagatatg 480 tgcataatgt gcctgatagt gcagggctgt cccctacttg ttaggtctac aaaqtctcqa ccctctctcc ccgctgcaga tatcactaac tatatacagc tagtacaccc cacctggcag 600 attgtggctt agatctgcgc ccaagataat aatcctaaag gcctcggaac cgtggacgag 660 aagcggagcc ctggagaccg gaggataatt ccgaggaaga caaatggtac cactacaggc 720 acctaacttg atcccgtttc cccttttctt gtttctaggt cgaccaaaca agaaatccgg 780 gacccgcgcg acctagatat tggctgcagg gttgaatttc acccatgcag catgctaaca 840 aagacgatgc gtagtctaga cacgggccag ggaatccccc gggtccagat tgcttcttca 900

aagagtgaag agacaaactg tagagccaaa atgccaccac atgagaccca geteggeega 960
agaggggttg atteattgga eggttaataa ageegacact agaaaatgac tggaaaggee 1020
gaaaagtggg cagtggeege gttgaggaac tagactetgg tteaacetge ggtgatetge 1080
tgtgcactet eggeegegac ggagtgegat egggagaaaa gtegetgee tggeacaatt 1140
egetegaega aegeettaga teagagetea aeetaageta tttateagge eateegttge 1200
cactacttet etageeteee gggaaacace tttetetege aagaegegae etagagageg 1260
eegetttage egteattate agegggetgg gttgeetaet egeegeeee eageaagage 1320
atgttgtttg egggaeetge ettgagaget tetgtggeat tattteatea eeetattttg 1380
gtgggaateg gaeaceetgg tettete

<210> 904 <211> 4793 <212> DNA

<213> Aspergillus nidulans

<400> 904

tacagtttta tcaggtttgc agctaggcta ccatacgtca agcagatgaa actattatat 60 acgtttacaa tatctgtatt tagcagccaa cgtaaacact actagaatcc taagagaaat 120 aaatatcctg tgcctcatgt aagaaccggg gcagatatag aaatatacaa caatctgtag 180 tgttatatcg agggaaccca tgccgtatat gctatggtca tatgcacgta atgaagatat 240 attcaagaca tatttggcgt gaccttcata caaaccaagg cgcgggattg aggtctactc 300 ttaaaaagta ccatgaattt tccttgtact ggtagaactg taacatcatt tcccactatc 360 cagcaagaca tttctataaa tctgtagaca actctcacca aaacacatgc caagatactg gcttactatc tcggtgagca gctctcaqca tcttcaatac aaaacaaaac acaggccaca gcgcagacaa tccttcttaa cagccaaatt atgcttgacg gaatgatcag gagcaatgca 540 tgcgcggtag caatagccta gcacgcgtct gattcttgtc tccagggtat aacgcagatt 600 660 acctccttta ctcgtcacta tccgatgagg actctgatcg caaaaattgt aatagagtac acatggttca ataacaacca tgtattttgt ttaaatacta tataatcact atggcctgat 720 tgcatcaaga ccagaaagaa ctcgaagaga gtgtgtgaaa tgcattcttt gcgtgctgtt 780 caaactatta gtacagcaag cgtaattatc gacattcaac ataccagaaa tatactcatc 840

acttccttca cctggcgaca agacggagaa gtaggacatg ctctgcgagg gcttggaggt 900 cgccttgcag gtgggaggag cagccaaaaa gccaattgga atgcaagaaa atttcaagaa 960 ttatacaggc cactcctcga tttaatgaca ggcaggcttc gcaagagcgc gaagcaatgt 1080 ctagaaaggg acaatatcgc aaccccgata acaaaatatt tcaaagccag acacattgta 1140 gaagtattgg gccagtcgcc gttcttttgg cttcgaaaaa gtcacgaact gccggaggga 1200 cccatttatt gaaatatgct ggccttgctg tcagtgctca taggagacct gtgctatgac 1260 agtgaggaag ttcattaggg caagggaggt cgggaagagc actgctgtgt atgggttaac 1320 tatatcttaa actgaagcag cgataaagac catacagtag agcagatgaa gcaaacaaca 1380 agatgatgat ggagtcaaag aattagtgag cctaaattcg cagtaactaa gaggactaat 1440 gggactggtg acgttacgaa gatcgcagaa gccgcaaaaa tcgcagtctt catataacac 1500 gagcagttca gaagaagcgc gcgacattga aggggccata cgtttggtac tattgtaggg 1560 aaagcactca gcatttacga ggatactcga aatgttgatg acatgccaca gcggattaat 1620 ggggatgtct gcaaagatac gccttcccaa gcgctatata tggcggccaa aggcgcattg 1680 ctcagttacg cagtatggct tccagttttt ttcgaccagc accatactat agaatgctct 1740 tgttcaattg ctggaactaa gcatctagaa aacctactgg aatgactgcg accagccaag 1800 gtatteteeg tgaggagete aattaateae ataeeeteea teeaeaaeaa gegeatgeee 1860 ctgtacaaag gacgccctac tcgaactcaa gaacagtact gcatctgcca cctccctagg 1920 ategeecate etacecattg gegeaatetg cacegeeggt getaaegeet etttegtete 1980 gggatccccc gtcgtcatgt tcgtgtcgat cacaccagga caaacgcagt tgactcgaat 2040 caggtccttg gagaagtcaa tcgcgtcggc gcgcgtcagg cctattatgg cggacttgga 2100 ggcgcagtac gcggctgcat cacatcaagt taaacactga accgcgtctg gaggaaatgt 2160 tccgggcaga taactgagtc agtattacgt accggcacca gccctcgaaa caacccccag 2220 ctgactcgcg atattcacaa tagatccccg actcttctgt ctccattctc cgtcctcgat 2280 accatcagac agtggctctt ggctgaccat cttcctcagt gccgcgcgcg agaccaacca 2340 cgtcccacga tagttcaccc cgttgatgaa atcgaattgc tcacagctga cctccgtcga 2400 gcgcaggaac tccttctgca ggacccccgc gcaattaacc acgtagtcta tccgcttgaa 2460

tgcgctgaat acttggtcaa tgaaactatt cacaaaggac tcgtcgctga tgtcgccagg 2520 gtaggacatc acgttcggtt tattggaggt cgccgcaagg atcttcatgt gtgtttcatt 2580 cagacctgag ccggggaggt cggtgattgc gatacgcgtg cacccggcag ctgcaaatgc 2640 tatggctgtt gcggcgccga ttcctggtgt tgttaggaaa gatatgaaat taagggttca 2700 taggettgee teetgetgeg ceagtgacga eggeggtgee agggaatgeg tagaatgacg 2760 gcgccatggc ggtttgtttt tgttccagca atgattattt gtaaaaggaa acctgcagtg 2820 gtgaatttga agcgatgcct gatatttcgg gaggagtcct cggatagata agatttgtqt 2880 agatgaggtc attgttgttt gccccgcagc ttatcagtga ccccgcttgt acgttggaga 2940 agtgaaccgt ttccagttgg agacttccaa tgttcgttat gcgttactcc aagtgttgtt 3000 tgggacactc aagttcgact gatatcaacc ctataggctt attatacata tatgctctaa 3060 aatctatatt gcgctcgatt ctatgcatct ctctacccaa cttctaaacc ctatataggt 3120 tcaatcgtct aatttttagc ttccaaaaac tccttgctga acggataatc aatataaccc 3180 gcctcctgca tgaacgcata gaagctgtcc cggtcgtatt tgttcagcgg cagccctct 3240 ctaatcctga acggcagatc agggttcgca atgaaatgtc tcccaaagac aacggcaatg 3300 tcgttatcct tatattctgt aaaagcagcc tccgcattcg ccgggttata accacccgca 3360 acaagaacgg gactcgtctt gccccagatc tcaagtagga actcgatccc ctctgtcttq 3420 tcgcaatcga cgttgttgat aacccgggat tcgataacgt gcaggtatgc caacttgagc 3480 tccttgagct tctcggcgaa atagctgaac tgcggcactg ggtccgccat cttcatgccc 3540 tgccatgtat tccatggact gagtctgaag cccacacggt ctgcaccaac ggcttcaaca 3600 agegeeeggg egaettegag accaaacege geaeggttgg ggaegeteee teeceaggea 3660 tcagtgcgtt tgttcgtgac gtcctgcaag aactgatcca ccaggtaccc gttggcaccg 3720 tggacctcaa ccccatcaaa tccagccgcg atggcattct tagccgcggt cacaaatgtc 3780 tggataagag cctggatgtc ctcctcggtg agctcttttg gaacaacccc gttctcagca 3840 tcgaggggga tagcgctggg cgctgtgact tcatacccgc cgtcggctct tagggtggct 3900 gggtctgcta cccggcccac ggcgacaaac tggcagaaga tgtagctgcc cttggtgtgg 3960 acggcgtcgg tgactttctt ccatgcggcg acttgctccg agttccagat ccctggcgcg 4020 tgcgggtaac cgccgtgttg tggagagatg atggttgctt cacttattag gagtgtacct 4080

ggcacagagg ctcgttgctc gtagtatgtt gttgccatgg ggagttgaac gtgctttgcg 4140
tctgcgcgaa gccgggtgag cggagccatg acgacgcggt ggttgagggt tacattgccg 4200
atgcggaggg gctggaagag gggcgattgt gaagccattg ttggcgtgga agtagagaat 4260
caaatatata gacaggatta aagtctgaaa tgttcatgag tttatgggag gttagttgcg 4320
agaaagaagg cgagttcgcc gagacgcaga ttttgcggtt tcatgcagta tagagccttg 4380
aaggtaaggc tttatacatt gattctaat ccttgccatt tttaaaaaca ttttcctgga 4440
ataagcaaat ttgattggg gaaaccatta aggctcagag ccttgcgtcc aatagacaaa 4500
ggttactgga aggtaatgtg gggagacggg cccactgtct ttcagagggt gagtgctctg 4560
gcgtcaggcc aggacagcta tatcttgttt ttattatcac agacgtgcag cggacgttga 4620
tgaagcatca agcaaataat gtccttgtcg gtgtaggcag gatgtgggtg ctggtgattc 4680
ttgccattca gtccttctgg gcgccgagcg tatcaaggag aaatgttaga cggagtagcc 4740
atgatgttag cttcgcaact ttcacgagaa ctggtcatct tcgttaatga tat 4793

<210> 905 <211> 3436

<212> DNA

<213> Aspergillus nidulans

<400> 905

ggttccaaac aggtgggctt ccccccaaa tttttgttcc acggtacaca ttccccaaaa gatgggatgc gggtctggtg tcggcctccc attagtgcag tacggttttt atatgaaqqq aggtagtgag tcaagttcgg gtggaggttc tgacgaacat attacaccgc cggaccctaa 180 tagccatagc tttgacccga accaggtggc cgaaggtgga ggctcaggcg gcgatggagg tggtggtgcg gctgcaatca ccacgagcga gtggatttct tatgttttga tgattgttgg atggttcatc ctaatccggg ctattagcga cttcctccgg gctcgacgcc atgagcaatt 360 ggtcctgcaa agccctgagc gcgggctccc tgttccggtc attgctgaga atgagaggtc 420 cgagacagtc gtctaagtct tcttattact gtatgcatca atagaggagt tctctgcttg 480 acatteteta tigitatite cattittata tigaegitti aageatggea ceaeceaeae 540 tcacatacct tgtagctatt ttttctccga agataccaat tttgaagaca tacgttggat 600 ttatttttgg gcagcttcct ggccgcaagg gatgaagcgt tgcgttgcct gtattcgcca 660

ttccaggcaa ctctttttct cccatttgtc cggtgtagtc cttacgtata taatagcact gcacagecae tetteateet eteaaatgta eegaagaaee etetagteag tagettaett atgggcgtca ceteageete atetaetteg teceaceget ggaetteeta agaateegte 840 tgggtaatcg cgatgcctaa tggattacgt cttggcggac tctccacagc gatccgtctg 900 ctccgttcgc gcccacgcct cattcgcggc tgattgactt atttatctat ttctagtctt 960 tttgcccaca agtctctggg tcatcgtctc ggtatttgga aacccttagt ctcgtcacgg 1020 tacctagatt tatggccaag atcgatgcgg cggaggggga gtccgcttcg tgtcccgcgc 1080 cgctaaacca agggccggtc gaggctcgct cgctgtcctc catcaccgca atcgcatcaa 1140 atcetecaaa etaceetege aateeggeae agaagaaget egateegttg gtaetgtata 1200 ttgtgagggt gcctggaagt aaaggtatgt tattttctct agttgttatg ccggcgtcgg 1260 cctagccatg gtcctaccta ttcccgctca ttgtttattc tgcgtcattg tttttggctt 1320 ttttgctaag atacggtttc taccatagac gtctttctta cacctcttaa accacccaca 1380 aagtccagcg teteggetga agegateaat geatecetet aetaeeteea tgttgegtee 1440 cccgacgatg agatcctcct ccaagaatac gagcaggagc gcgaggagcg cgcgcggcta 1500 cgcaaagaag ggcttattga cgacgatccg gacctgccga taccgccgct tgaagtcgcg 1560 cgcttgaata atgttcggcg taaacctgtt gctgttgctg gcactggcgg cggcgctggg 1620 atgaaggata cagaatcccc actaccgcac cttcgtcgcc agtgaagcgg cgtcctctgc 1680 cttcggaatt gccagttcag gagggggaaa ataaatcgtc gcttcttata ggtgaggagg 1740 cgtcgcctgt gctgcccccg cggccgacct ccttcaatgt gccaaaccag gctggagcag 1800 tagatcagat gtcgccagtt ctacctccgc gccccgtctc taacacgccc cttccagcaa 1860 atggactaga gtacccgcca cccatgcccc cacgcccatc gcctagtgtt ccagcgtgtg 1920 aggcatcttc tgacaagcgt gcatcgccga aaaagaataa ccgctggagt gcgctgtctg 1980 gatatatete taateatate eagegeggtg acaggeatga ageggeetee ceaettegte 2040 acagetttga tgteteeege eegeagatge geeettette gtegeatgat etatttgege 2100 cgtattctcc gccggggtac ccttccagaa gtcctgggca gtctcctact cggcgaccac 2160 gcgatagcgc ttctccgctg cagcctcaac caggctttca tatcaccctg atccgccgtg 2220 accetageea eggaageeag tggaatgtgg caaceatgte caegeetteg geagaeagta 2280



ctggcataga tattgatgtg tcgacaccag ggtatagccg gttcgcggga caaaatgagc 2340 ctttctcact tgattccctc ggcttgaact tacccgctga agctcgcaat ctacttagcc 2400 gacatecaaa cattgtetee cagteegatt egeeagacae cacetegget ecaegegate 2460 cgtcacaacc tcgacgcttt catcgcaagc ttcttgtgtc gagacctcac aacttggaag 2520 acgetegeaa etegegeggg tetetagaeg tatetggagg gegeeeetea atggatagea 2580 tctccggtag ttctatcaac tcacaccaac cagcatcatc taagctcaag agcggctatt 2640 atacgtttac atcaccctgg aatggcacct gcacgttctc agccagcgtc aacggtcgaa 2700 gtctgaaatg caagcatatg atcccctctc cggggcttcc caactctaat cacgataacc 2760 ctgctgtgac tgtggcagaa ctacgcttca acaccccttt ccaaaccggt catcttcagt 2820 accetggate tteacatgee teteegttte teeteagtea aactaetett ettaaagate 2880 cctcagcaaa tcccgacccc tcggctccgt attatttcga tccttcatca ccgccccctt 2940 ccaaacgcgc cgctattgcc aacctcatca accagagatt gaaccgcagg ctgtcaaata 3000 gcagctcaag tgacggaggg ggcaacgaag cgcctccacc actacccacc cgtcctcctc 3060 caagcgatca acgcatcgat ctttcgcttg cgcgtgagaa agctggcgga ggcatgcgtg 3120 gcgacagtgc taaattgggt aagctcatca tcgaagatga gggtatcaaa atgcttgatt 3180 tggtggttgc cgcttccatg gctgtctggt ggaggggta ttattactag tctgcctttc 3240 actatatcta ctaggaggcg ccttggtttc ttgtggcatt tagcgatggt ctttttacaa 3300 tttttcggtt ttggatatat catttgaata ctcattacag cgatatagtg tgcgatatat 3360 ggactatgca ttatggacgg gccttttgag ttagacggta atatacttct cgattttgga 3420 tacctcaatg ttggat 3436

<210>	906
.011.	E 2 4 2

<211> 5342

<212> DNA

<213> Aspergillus nidulans

<400> 906

atccaccatg cgaaggcggc tccatagaac tgcctcagtc cacgatctct cctggatcca 60
agattgagca actcgcgtct agatgacgca atcctgtgag gatatgtccc tgaggtctca 120
ctcatttcga cttcattaaa gaaaacgact ctcgtctctt caacttcacc tccaaaatgc 180

attecgeega acacaacace tategetgea geeteeteea gageeacage geagegeage tcatctacaa cgtcacaaag acgctggctc gtcgagccag gatccttttt atcggctgca agtcctcact gcctttgatc caccatctcg cgtccgccgg tcacgaaatc cacggcatcg acgagtecaa ggatgecate getettgete gaegattece gggagaetae cacetgatea 420 gcccggtggg atattatcct cccttcgaat tcgatgcaat attcgccatt cgctccctcc 480 atcatctgag ccacgcccag gtcaaagaaa tggtttctca tatggggagg tggttgaaga agggtggatc attgaccctg gtgacgccat tacctgttga cagttctggg gccagcggtt 600 cagattccag cacggccaag tcttcattga cccgggacag ttgggtgtcc ctctgcagga 660 cagcaggcct ttcgtccccg gacagcgaag ccataatacc ggtaccgctc aacgcgacgg actogtogca gaccoattgo ttoatgagot ttoataagat ataacttgot ctacaagtgt atttaaaaca cgatcagtat caatatattc atatataata tcatgacagg gaaagagggg 840 ttccacaaag gcggctggca agtctctttc tataccttga atttcgtgct tgatggctat 900 tagtcctgcc tgactatgag agaagttttg gctctcaaga tatggcgata tcgagaacgt 960 aattcaagta gcttagatat acactgctaa ttatctgatc aggtcttgtt gtactaatgg 1020 ctattattcg gataggcgac catggctcaa ttaggcagtc tgttatggta gcttgccgtg 1080 gttgtagtca gcaaacttga gccttgtgcc gataatacaa gaacactcgt tctcccctct 1140 acaaagcgtt tgttgtgcct ttctcaccaa gagaaaaacc gcaaagattg acatcaaact 1200 tcaaataccc ttcagtctct ggccattctg gacgcacatt aatgttttct ttctatctca 1260 aageteatee catggettgg teaagttate aggetaegea egtegettga tteteaeget 1320 catggaccta attatettte gtgagttega ttacetegat tgtgttgece gtatgtaage 1380 ataaatactg atttcgaccc gcaattgggc gacaaatatt taggtatcga aagcatcagc 1440 cactgcacta ccaccgtagc actctgttgc ccgtgcttgg gcatcactcg tggtgaaaga 1500 gtctcagaaa cgctcagacc gcaaacgctc tgccttactt aaaacagagg aagccctccc 1560 ttctagctgc cttacagacg cacaggagca ctgccccagc caaggacatg gacaagccca 1620 ggaacaggcc agacgacaaa cggatccgga gctgcatccg cactcattgc ttcaagctca 1680 ggccctaacc acgaacccca atcaagcaat ataacaaggc tgccatctaa cttctgacgc 1740 ggtgctaacg cttgcatttc taccgctccc gcttttcttc agcagaacgc cgcaggcttt 1800

gcaccgtttt ttgaccaaga tgcggaccca tttggcttag tgcttgaagc gggcgtgcgg 1860 ggtcaggatg gagccgggtg gagtggtaat ggaatgggag cgtcattcta ttaagggttc 1920 ctcatacage ggaatgacca ectgeetteg cagtatetae ttgagattae ggeetgtgee 1980 tatggatggt tcgggtattt gcatccggtt gctaaacaag ctgacgataa tttgtacgta 2040 ctgttgaaaa atatggatat accggtaaac caactgaact tagcaccact acgcacgtac 2100 cacatggtga caccttccat ctgctcgagc aacaccactg ggagcacagc cttgcccgcc 2160 ccaggatgac cgacccttct tgatagacat actaccaaca cacccacgaa ttagcatata 2220 gtcctattcc tccctcctta tcatccactt gaagcacaga aagcaggtga aacgtaccac 2280 aaactcggag ttctcacggt cagttgaatc aaaaaacgca tttgcgtggt cccgttcctc 2340 gccttcaccc cggggccctg gaggcagctg tctgccgatt ccgccagata tacaacatct 2400 gcaacgcgac gatgaggacg ttgaagagtc catatagaca gaagtgcgcc gtgaagcctt 2460 ttgcgtaccg cggggcgtcg ctagattgga agatgtggtt tcacctgtta tacctgcgct 2520 gacagacagg cggtagtgaa agagagtagc tacggtatgt acctggggag cagtggcgtt 2580 cccagcagcc caagcgataa aggtcatcgc aagcacagtc gacctcttgg tctggccggc 2640 aacattgcgt gatatcagtg agaagaggag gttgccctct acgagaatga actgcgtgca 2700 gtagaagaca atcaggaggc ctactctaga tgctgcggta ggagaaatgg agtagatgac 2760 ggcggtgccg acaatagctg ggctattccc gtcaccagtc agaaatatag ctggtgagtg 2820 ggataaaaag gtggacgtac aaagtgcaca gatgcattat catcaccgtc cggcgcgtcc 2880 acgttgccag cgacgcacca cccaccatca cggcaatggt caccccgcct tgcgcgatat 2940 tcaacaactg cgtctggaga gtcgtaaatc caaaactctt gatgatgata ttcgaaaaca 3000 cacccatcta ccgataacca gggtgctgct cagctggagg agcacgcata accaaacaat 3060 tgaatccatg agcgcctcga ccgcttgata gcgcttatac tgcttgttct ggattccagt 3120 gtcgttggcg cgcacccgct cgaccattag ccgcttctca gcctcgctga agcatttggc 3180 tttcatcggc ctgtcgggga tgtaccagct caggaagaga ccccaggcac aggttgcggc 3240 gccaagaaca aggaagagca atttccagga tatgacgtgg ccgatgtagt ggctcgtacc 3300 ccaggccagg ataccgccga tctaagtggc tggcttagtt cggtagaaaa gcgagagacg 3360 tggaagccgg gggaggagag taccattagt tggacgccag tcactaggat gggttagtga 3420

atccactgaa ataaccagag ccagaatcgg gagcgttttc gagaacaaag aatcaacacc 3480 tacceteaac ateceatega gaattegaeg gttgateege eagaagagae ggeggttegt 3540 cgccttgtcg atattgacag gatcaccagt cgcatgtgct gccgtctcaa catcagcagc 3600 ctggagcccc aggccttttt cagggacggg gtcggtatgc tctttgtggg tggaaccggg 3660 ctgtgggtgt caacggtgtc ggccatcctg atgtcttgtc ttgccagact attcagtggt 3720 ttcccttagg tgagctctgg gcactagacg atgatctaac gggttccttc tcgtcgatcg 3780 acggcggagg actgccggcg actcgcccgg tacgcggcat ggtggccggt gattgtcccc 3840 gggcccgcta tatcaggctt actggcatgg cagacaggct atactttatc tcgcagtcta 3900 ccacaacaaa agggttcttc ttgttagatc gatattgcta ggccatgtct ccgagtgccc 3960 tgcctccgaa acgggctctc gaagacccag cgggagacca gacgccaccg cgtgcccgtc 4020 ctaaacatgc ttcaaccatc agtccagtcg ataccagtcc catttccatt cctcagcatc 4080 teettgaett cetttaetee gaategagea teteaaagat etggeaagtg geteagaagg 4140 cgctcggcag tgtcgacccg ccgctgctcc accctgaata caccaacaaa gacaaaacct 4200 acgtctaccg cgcgctcgac ttctggacct ccggcttctt gccgggctcg ctgtacttgc 4260 ttctcgagcg gcagatccag tacccggcgt tctaccgtac tcccgccggg aaggcccct 4320 eggeeecte eegeacegte teeagttgea geacetgtge egatggtgga gegeeaacet 4380 gcaccagaac gctgctcgac gcgatacgca cgaactgggg ttcatgattg cgccctgggc 4440 cattaaggcg tgggaactcc accgtgatcc gcaggcatac agcagtcttg tcctggcggc 4500 gcactegete gegtegeget ttgateggeg egtacagteg eteeggteat gggatgtetg 4560 ctatacaaag cggtacactt tcacggatcc gaccaaggac ttccttgtca tcattgataa 4620 catgeteaac etggatetae tettetgagt tgegeaegaa aegggggaee getegetgte 4680 cgagatcgcc attgcacatg cgcggaagac gcaagctcac catatccgtc cagacaagag 4740 caccatccat gtggtcaact ataatgccga cgggactccc aggcaaagtt cacgcatcag 4800 gggtaccgcg accgaagctg ctggagtcgc gggcagagct ggggtctcct gggcttcagt 4860 agatggaccg ttgggcccgg gataccttct ttctgccgac ggttagagac cctgccgata 4920 acttatcgag gacctacctg cgatccaagg ccctcctggg acctcaatgc ccccggtgaa 4980 gaggcctgtc cgcgggttac gtccgcgagg atggtatgcc gcctcgggct agttttgtgt 5040

gcaaggcccc tcatgacaat aatgacaggc ctccccacaa gccccgggtc ctcccctttc 5100
tcttccttcc gctacccgag gatcagtgtc caactcctga ctcattacag ggaatcactt 5160
tctttatggg ggaccgttct tctatattct tagtctggcc gcgctagtca aaccgcacat 5220
gggtcttcag gtcctatctg ctcacagggt ctacagtgtt ccttctttcc cacttcttcg 5280
cttcgtcctt ctctccttcg tctccctagt cctactctat aacattcttc tatctcagtt 5340
cc 5342

<210> 907 <211> 3743 <212> DNA

<213> Aspergillus nidulans

<400> 907

aaaataatgc ggtgccgaca tacagtgaaa agtccagctt tcatcagtaa ccgattatca gcatagtctt cggtatggaa tcaagactgt gaaagggtgg gacgcccaaa aggcaacaag 120 gtagtaaaca gctcggccct tgacccggag cttcgcggaa gctaaatgac gaaaagagta 180 tcgcatgtca tgcttcgtct ttcgcgaaac ggtgttaata agcgatggat tgacgtcgca ಾತ್ರಾತ್ರ tcaatacaag gcgctctaat gtttgaatat aatgtagcta tga& 300 tagttgggga actcataagt atcactgcgg gttacccaca tggcgtggat gataccaggg 360 atccaaccca agatcgtcaa acagatgttg atgaggaaat cagcaccgca tcctcgctca aggragacte caagaggggg aagaatgaag gegaagatga gtttqeaaat ateactagga 480 game sateg gteagtaaag gaggtttgeg acteaacaaa atteageege etgaagaaac 540 tgagaaaagc tcgaacgaca tcataacggc gacctgcggt cgggcgcgga gaaaatcagg 600 gegggttegg caacttaega ggeagtgaaa ggeattttga geta 660 ratetr co agtagtaacg gattgaagcg atagaag 720 acgattgttg ge jugagg tagatgatca ggagagaata atgacygaaa gatgaattgg gcgggagcga cgagcggttc 780 cttaaataat gagtetttga gagetggtge teagteaget agetagagaa tageggettg 840 agegataate attigeagea ateatteett teaaaegatg ageateageg tgaaetggaa 900 atgcaatgcc tggtctcggc agagtttgct acgtcatact ggcgccgctg tggctcatga 960 ctgtcgcgca ttccctatga ttggtctttt cctctctact actgagacgt ggttgtcgat 1020

gtcattctaa ttttctggct gatctccata gtctgccgtt tttactacgt accccagcca 1080 ggaactcgac tgctgtaact tgaatttgtc tagccgtccc tatggttcat cttctatcca 1140 gtaaaactat aaatteggga etgeagatet eattittgea gggeetaatt etgetgeeta 1200 gatgcggatg cactagtaac cgcctgactg aaatcaccag agtgacggtc gccaacgttc 1260 aaagtggagt gagcttggtc tttagatagg gaaagtctct gctcaaccct ggcgtcagat 1320 gettegggge tggteeggag caeegeeage ectaeageee catateegte tateteagee 1380 acgttctgga tctcgaacgt cctaagacga atgatatcat cgggcatggg ttaattttag 1440 caggetgege ttegatatgg gtattgeact ceagaceace agtagattea ageataaaag 1500 aaggtgccta gtgcaggttt catggcagcg gcaaggtttg tcttaataat atctactgta 1560 ttgaggggaa catgagattg cctctactgt aattgtagta tcatttctat gggtatatqa 1620 tgatgtaatt ttataaaatg ccgatatcga catacagagt atctcaacca atcagaagct 1680 gaaagaaggt agatttatat ttattgccag tgggcaaatg ggctatgtac caaattcact 1740 tettttecaa etagatggag aetteaggea eeaagtegta aeataaagat gtacatgaag 1800 ctccaatagc ttgagttccg atgtgggtgt tcctgaggct tggcggcgaa gcggagcgaa 1860 aageteacea ggeetttgae eeaaaaatta geettettet teaacaegta ggeaacteee 1920 tttttttttt geggaacaet ataaegatta etgttettag agecaatget tecatgtegg 1980 tagcacttgg tttctccctg cgctgtatgc cagcgcggct ggctgccagg ctagacctcg 2040 ttcgtctgga gttgggatgg aatcgtggca ctatctgttc acaagcgcat tattctaggc 2100 gcagatgggc tggaacaaag acgactcaag ccacagatcg gcgatcggct tgtacatggc 2160 taactacgac gcctgagcag ctggtaatag ttactaccac cgcaccttga tctttactga 2220 acgttgaagt cctcagaaga cattctttct agttttccta ccgaattatc ccggtcaaca 2280 ctggattata tccctgttct cctctttacc cccgctttcg cccaatgggg cgatgcacaa 2340 ggcacgttct tcgagcaatg tctcagcaga ttataccaga agacctcgga ccgtctacca 2400 caattgccta tccatgccgt ttgtgccgta attgatcgcc ttccacacta tgcacgagag 2460 cataatgcgt ttggtgaatc tgaagggata tcaatcatac tcgctagacg agatgatatt 2520 cagggcaaag ccgctacacc tcgtcaaatc cgcttggcgg agactgaaga accgacgctg 2580 ctcttctcgt ttcgggaaga catccgagac cagtccttac gccagcccgc ccacgagatt 2640

ggactgcgac tcgcaaatac aatcttctta aatggaaaag aaaacacact atttgggaca 2700 aggtgcgctt atgatacttc ttcaagaaga ctcaagctgg agaaatcggt cgacctgtct 2760 acgtgctcgg tcatgatgag gcccaacagt attcgcagct cactagatct cccactgtac 2820 cctgttggag agcgacgcaa ggttatatct agcatgggaa acatcctccg tcaggtagca 2880 aaacgtgccg acggcaaatc ggacgaatca atgccggctt cgtccgagtt ggagaaggtg 2940 cttcctaggt atatctcaga aaatgacatt gccgatcgaa gggtcactgt ttgggctttg 3000 attgaaaaaa cggagaaaag cccctacgca aaatcaaacc attcgcaaag cagtcttgaa 3060 gaggcaatcc agaacggcgc caaacttcat cgtgttatga gcggcggagg aggatggggg 3120 aaaaaacagg gccttctgtc acttgacccg gaaatgagct ttggagagct tcgtgaggag 3180 gacataaaac ctctgcatcg actcctttca atggatgagg tagactcagc atacgaggct 3240 gcccgcccc cggagttgcc gatgttcctg caagatctgt caaagctgtc gcaggccgca 3300 gageegggag actaegttea gttttttgee tetgttgeag agegggaget ataeteeaac 3360 agtagtatta gcaagcgcga attctcagga aacgccgttt catgctgctt cggcgtgatg 3420 teggaegeag atatgttgte gageeacaea gtgggeeata agaatttgae ggttgtgeea 3480 aaccattttg gegeactete egagaaagee ateaegtace tgeageetet ggetgaagee 3540 aagtcagata cgtttgagac tcatactaag gtcgacgttc ctggatcgcg tctcgctttg 3600 atactcgagt aaagccttgc tgaaccaact tgatagcggt cagactatgt catgcgtacg 3660 cgatagtgta ttatagtatt acaggatttc agactcaaat aatctacgta cacattctat 3720 3743 ttaataggtt gacctttacc tac

<210> 908

<211> 3767

<212> DNA

<213> Aspergillus nidulans

<400> 908

cttactcagg ccttggcctc ttcacgcaag caccgctcgc aggtgcagga aaaggtgatt 60
agtttcctcg ttctctttcg tctggcatta agatcaacgt gaaccgtgag gtcgaagtac 120
gaaatacagc attcttcacc tgccgcgata tctcgtgtag ctgttaggac cattcggctc 180
tgctcgtcag ggccgtgttt aagctgtaca aagtctctgt tagcaaccaa tctgtcataa 240

gttctttctt tttctgtgaa aagcttgaag ttcgtctctg aaaggtaacg gaaaactcac attcggcacg caagaatgat tacagagcgt cgcccgcgga tagcaggcaa gtccatactg agggccacgc tgctggccct gcaggctgtc cggcggtccc gtggcgccat gatacaggcc 420 aaatgagtte gattettett tgeagattag tgaaageage tettegtegt tggegaeaee 480 cgaaagccgg tcatggagat atatctggat tagatctttc cagcgggcga tcctctcgtc 540 cggccaggcc tcctgattgc cgcgcatatc cttcattgct tggaagccgc gcttgaacct gtcactccaa aggtacggac ttgaatcctc tccgattgtg gatctgcgta ttagatccga 660 ctcgatccgg cggcccgcga gcatgcgcat gattacccat aacatggcaa gctcgtcttc 720 gccttcttcc tggcggatct ggttgccgtg ctccttcaac caggcgcatt caaaatcatg 780 gtgtgcctgg ccagtagcct tgcaatggtc atcgcaccag atcacgtctt ggaaacaatt gttcggacaa cgaatacatg tggacgaatc gcgcggtatc cgccaacggc agcgcagatt 900 gctgcagata agcgcatcat tgcttgcagg cggaacagcc gggacgagtg cgtagggtgc 960 atcagccatg atcaccgtcc ctgccggtac aggcgcagta acgcgcacca gtcttccctt 1020 ttgcggatcg taatcctgaa ctgctgaggg atggatatac gtgtccgcat cctgcggatc 1080 aagaggatcg ggtttcaccg caacgaggag ctgtcggtgt tccatcattc ccagatcacc 1140 agccctctgg ctgctgctgt tactattggg tgccgtaatt ggcgagctct cgtagctctg 1200 cttgcatagc cctgccctgc gaagaagcgc ctccatctcg tgcatatcat acaattgcac 1260 cgcatagaac aagtcctggt gcaccgcggg gccctggaga tcgatcacga tctcccgatt 1320 cgcgagacgg cggccatcgg ctgacagete tetetegegg ageacaacga getgetteee 1380 acgggettee tggteegaga tgaaatgagt ateggggtea agecatteee accegetaga 1440 cgtggagttc tcgcgcatcc aacctccgtc aacacagtca agcacgaaga cgcctcccgg 1500. cttcaggact cggtacgtct cacgcagcat ctgcaaatcg tcctcatagg acccatggcc 1560 gaatgaattg cccaacagga ccaccaggtc atactctcca tctccagccg gaatttggcg 1620 tgcatctcct acctggaatt ggatgttgca gctgcgatcc tctgcgtctt ggatttcttg 1680 tgcccgcttc tgcgcaaggc ttatcagata ctcgctgtga tcgacccccg taaattggac 1740 ggatgagagt egetttgeta gattgattgt gtgeeggeee tgteegeaae ataggtetag 1800: cacgcgcaat ggtgacgagg tggcaaggcg agggtagaca agcagattcc gcacgcgggg 1860

aatctggagt aagacccgac attctgcctc tgtgatggcg ggatcctcga cacagtctcc 1920 gtctgcccag aggtagacgt agttatatgc ttccttccac caatctggct tgacgtgggg 1980 aaagagagag gggacctgcc ccaggacctt agtagccata ttttgagtag tgaagattgg 2040 tggtcactga aacaggttcc aaccggcatg gccatatata agagactgcc ttatgtagtg 2100 taaccatggt tgttgctatg tgtcacgcag tcataggcaa gtagactgct tgtgcaggac 2160 tttataggga aaagcacggc tcaagggttc taaatgacgt cgccaactgc agaatgtgtg 2220 acgggtgtcg aggatggagg atcgattagg tacggcagag agtcaccatg ggtaaccaga 2280 ccgatcaggt ttcaaaatag cccttttaaa cctcattgct cagcaaacat ggaccgagat 2340 acaatataag taactaatgg ctatttacaa tagaattatc aatacaggtt ttagccctag 2400 cggtctgtaa atttatttgt ccagctagtt acacttatgt tgtttctcca ggcatgtgga 2460 ggccatatat catgttattc ctttatatta tatgtcttgg aagacaactg tacagggaat 2520 ageteaacga attgagtage tgettatggt ggeattggeg ettagettgg aetgeeceaa 2580. ggtcctcacg agtggacgca catatgctac aatacgcaat accacgatag tcggccggat 2640 cgatgtccat cagcagccag gctctatctc tagcaccgcc agagtggaaa ttgcttgagt 2700 tcactgaaga agaccaatga ttaatccccg ccacgtgcga atgccggcca atcataaccc 2760 aggetaaaag agaetaeett eaggeagteg teettaateg ttgeeceatg gggetgttte 2820 gaggcgggaa tgtataaata aggtgtcatc aggtagccca gcttctcaca atatcactgg 2880 gtggtcgaaa gaaatgagat taagagatgt atacaaaaat catatcgccg ctctccttgc 2940 cacgacgtac accetegeet ttgcgaaacc atcagtttat ettateegae acggegagaa 3000 gcccgatgat ggaagcactg cgctcagcgc gcagggcgaa gattgagcgc agtgtctccg 3060 tcaggtcttt ggtttgtcgt cggactataa cattgggtac atcatggcca tgacacccaa 3120 ggatcgtatg cacgcagctc tgttctcaga ttagctggat ctgacttgcc cagatggaaa 3180 acgcaacagg ccctacctga ccgttctccc tttggcggaa gacttgggtc tagaagtcga 3240 catctcgtgt gaccgtgacg acccagagtg tgtcaaagat ggcgtggata actttgatgg 3300 agacgggaac gttcttatct gctgggagca cgacgcactg acggacatca tcgaggagtt 3360 gggggatgat gatgcgcctg agtatccgga agagggtaag aaggccctgt agtatgtctc 3420 gcaaagaggg atgctcttgg aatgcttatc ggccaggtac gacctgatat ggaccgatcc 3480

ttttccgtat gaagagatca ccgcggagac aagcgaggag tacccaaggt tgggtaagat 3540 cgtttccgac tctgatacgc ggcactatag atcgcccttt gtccgttgat gctccagacg 3600 aaattgggaa atgacctttt aagagtgtac gaagaagtca attccaaagc aatagattgg 3660 ctataatctc agctaaacgc tcgagctgtt gtggactgac tcctactaaa tgtagaggag 3720 ggagatgcta ctcaggccag aaccagggac aagccccgat ggctcat 3767

- <210> 909 <211> 1775
- <212> DNA
- <213> Aspergillus nidulans
- <400> 909

cctattacat gttacatgtt atgtttcatc ccttattttg tcactcaaqc qaaccaqaat tctccaatct ggcgctgcag ttacttattt tcaatggcat gacgtgaata agacgatctc 120 taaatcaata cttacgatgg cgcagcagct ataaactgac agtaccaggc aatgctaccc 180 agctgtataa tgcctgaatt caaggtttca tttccgaaac aacttattat attggcttct tgatgtcaaa cccaggatct atagctatta cagttgaata cctgcccatt tgtgtctata 300 teetgeacaa ggettettag agetettatt aateegagea ggateaeget tgagaetgge 360 aatcactggc ctgactggtc agttcaacta aggataagtt actatatgta ctacactaga 420 aaggtettga tateaggaag eeacaetata aaaggegete aettaaeeeg tgeteataeg 480 ttaccctcct tgcccagage ccattgttca ggageccaaa tgggatttag etggttttag 540 gtggaaaagg cggagtatgc agaggcagag aatgaatact gatgcaatgt caatttctag 600 aatatcagca ttcattcaat cgggcacgtt ttaagtagca tattgcattc atgatgacag 660 totatacgga acaaagagta gaaggcagat ctgqqtccaa tcactacqcc atqqtcaqct atctagtcca tgaccaagtc ctaatacagt aggcaggcta cccatatctc gatggacatc tctgaatcat tcacgttcca ttatctaaag cataagtcgg taagacagac agaatggaca 840 cgaaactaca tgagatggaa gtacaaaagg caagcagaag atcagatata caaatacaag 900 aatcccgagg ctaaaagaga gcccggaaaa caaagggagg agagagatag tcccgcagca 960 gtatgcaaaa aggaagacc aacggacgac aacccggtcc cgatccagcg ccatcccatt 1020 accagtacaa gcacgtttct tatatattgc gatggatttc gtgattttct gaaggaaacg 1080

taacaatccg actccgtaat tggcatgctc tcactttgtt gttagettce actgcccag 1140
gcagctagat gcccacaaag cgactaaaat actgcggtga caggcgtcat cgatcgatcg 1200
caaatctagg atgatctctc aaggtagaag gttcgctctc gatcctttcg cactctgtgg 1260
gtttgctcga gcgaagtttg tttacagggt aggctgggcc ttctgttcct cggtagaagg 1320
agcaccagga gcaagcatct gcaacgcaaa tcaagtcage cagttgaacc actgactccg 1380
gtcaaatata accaaagtca taaccacgat aatccaattt cttggcatct ccgacggccc 1440
aaaagaattt tcaactcatt aacgtcggcc gctatatccg tcgataacag ccggagcaaa 1500
acccaaagaa ggaataaaag tgcgcatacc tcgttagctc ccttgatcat tccctgctca 1560
cgctccatct ggatatactg ctcctcctcg gcgtaggcta aggcccaggg cacaccgagc 1620
aagaatgcgc tagtggacag gatccagagc gccctgccgc tgaataagat gctcccttt 1680
gcaagcgatg aaacgtagct gacaaaaaat gtgacctgct tgcgggcgga gggaggaaca 1740
atgtctttca gggcggcaag gcgctcatac aggct 1775

<210> 910 <211> 2683

<212> DNA

<213> Aspergillus nidulans

<400> 910

atgctgactg acattctagc agctgtaaat tctagctaga aaaggatggc ggagatcgtt 60 ttgacctcga taactaattt caccgttgct tcgctcgaac tagttttatt tgtttatatg 120 ccattaaatt atatattcgc tatctcttct tctcaaaaca aatactagtc tcatatccaa gtcggagata tatataatct aacgaaacaa tttattgacg aaggaaggtt gtttcaaggg ctcaaggaaa gactccgata tcttctaaac ataacaccaa caaaatatat aacgacgccc agccaagcca tacgccacgt cctatggatc aaatgatcaa caccaagaat ccaagacacc 360 ggtgtcgcgc gccaaggcgt agatctggtc caccacagct gtgacatcct tggtcttgag 420 tggcacacga tgctcacctt cccactcgac taatgacact gaatctgact gacaatagct 480 acgcagtagc ctacggtgca agctcaaccc tgggtcccgc aatccatgga catgtaatgt 540 cggcagtcgg agcatatgtt ctgtgctatc ggttggtaac tcgggctcac tatccagcat 600 ggacggacta gccgcatcga cgaggcccat ggggatagaa ccaggaccac tactcgtttc 660

tggcagtagc cacaccaatg gccctctccc ggccatcaat accgcgaacc ggaaacgcgg 720 ccgggtcgcc gctctctcac ctagccgctg ctggatcgtc tgttgcgcgt ataagatgct 780 tgctgcgact ttggcgccct gactgaaacc aagtagcgct atccactccc ccgtagcgcc 840 gcgcatatcg tcgtcgtaca tggccgtggc gatggagagg ttgatcttct tgacgacctc 900 ctgagcggac cggtccggat ctgctgccgt gcaacgcagc caggccttga aggggccatg 960 gtccttgtag acggatgtta cgtctgagcc gggctgggca gcaaagggtg cctcggcata 1020 gacgaagcga aaggtggacc gaaggaaccg ttcaaggaca cggcactgca tgcggaagat 1080 gcgcgcattg gtgccgccgc cgtggaggca gaggatgcga gggaggtgga gggtgtaatc 1140 tgcctcttct ccgctgggga ttcggatggt catttcactg gcggagcggt tatgcactag 1200 atatgtggta tacgacgaca gaatagagag acggacggcg atgaatcatc gtagagtatt 1260 ctgtacaggc ctggctataa ctactctatg aacgcggtgg aagttaatat tagagcctag 1320 tcctaactca cgtccacatc aaagatccac aaacatcttg gacgtgcttt taggccagtg 1380 actccagaca aggatgagat actccgctcg gagattctca cttcagtaga tttcagctcg 1440 tcttatcgca gttgggctta atgaccaggc ccctggtcta gtgcatttta tggtaggcaa 1500 ggagcagagt tggccggcac attttcatca tggggaagac cccgcttcgt aaaattaata 1560 tcacgagctg cgggtgggaa gatggcgata atatagcgtg taagataagg tgagacatca 1620 gcttgaaaat gaaaaagact aagaggaaaa gaatatgacc attgtaaaaa acacaagagt 1680 agcctaaatc cgagggcttc aggcggagct cggacataga aattccattt ggaaaatatc 1740 ccgaatgtga ttcagtgtac gattcgccga ggtcgacgct gccctaaagc gtctggccaa 1800 agcagaatat aaccgctttc ttacctgact cttcaccttt atggtttact ggtttcgtct 1860 ttcatgaatt ctggtcgttt aatatcttgt tcttctaaca ccagattgta ctcctcccaa 1920 egggeettae gaetteteaa aataeaeeae ggteaaeatg acagaaeaae eteegeagaa 1980 ccactcggtg gacctcaacc agaatgaaga caacaatgag aatgactata ggagctcctc 2040 tgcgaccgat gctgaacgtc cctgtgagcc aaagatcgaa gaatcaaccg cgaagcccc 2100 cactggacct cctgcccctc ctccgccccc caacggtggc ctagtcgcgt ggctacacgt 2160 categgtgge titatgetet tetteaatae tiggggaate atgaatgett teggggtett 2220 tcaaacatat tatgaatcgg gtgctctgtt cgaaagatcg tcgtccgaca tctcatggat 2280

cgggtctatt caggcgacca tgctattgct ggtgggtttc ttcacgggct cgatctacga 2340 ccgcggatac ttgcgcgctc ttctggttgt cggcagcttc tgtattgttt tcgggcacat 2400 gatgcttagt ctctgcaaaa catacggcca agtgctcctc gcgcagggat tctgcgtcgg 2460 gataggtgct ggctgcctct tcgttccctg cgtctctgtc ctgccacct atttcagctc 2520 caggctcggt acggccctgg ggctggccgt gtctggctcc tctatgggtg gtgtcatcta 2580 cccaatcgtc cttaacgagc ttatcggtc cctcaggtttt ggctggtccg tccgcgtcat 2640 cggcttcatc gcgctggca ctcttctggt ccccatcgcc gtc 2683

- <210> 911 <211> 3131 <212> DNA
- <213> Aspergillus nidulans
- <223> unsure at all n locations

<400> 911

agggccaaaa aaatggaaca ccatggggga ttaccgaacc catttaaaaa aaccataccc 60 atttataaga aggtgggcca cctattgcca aaaaaaaggg tatacagggt tggccctcgt 120 tctaaaaaga ggggggtaaa aaatttaccg atgaccccac ccaaaaataa gactaaccta 180 ggcggggggg atcatttgga gaaagtgaaa gggtcttata acgggcactc tttatagaat 240 tttggaatta tcatgatagg ggactgcgca atggagtgag tggggttggg atcccattgt 300 360 gaaaaagagt tttatattgt tacacaggga ttgtcagagg acggacccct acggatgctt gaccaaaaaa aatgggatca attggaccta tatgtccatg gtggaaaaca gggatatcaa 420 taggaccage accetttteg acggeettte cetegteage aatatagggt tttgetteaa 480 gacgtttgac atttgacaaa atgcgtcaag agagttcttc gagggccgca ccgttggcgt 540 tgaagtaaga cgacatcttg ctcttttttg cttggtcttt tttttttcta gagagtcgtc 600 gtagtataga aaggtagatt tcgattgatg atgatgtttg acttgaggca agtcaagaat 660 gccatatata tcagagccat tgtggcgatc agtgtgattt ccgatctagg gcaagctgag 720 780 gctgttgacg gattctggaa tccgcagaga agagggaatc cagtttccga gcggcgttag gccagcttgc ccaatccagc tcttttagtg tcattttatt tcaagctaat tagcggtaat agcataactc ggaactcttc cggttgatgg aattacttga gctgtatcaa cggagcattc 900 geogecattt aaccegatae coetecece tettetatge tgteeggggt atateaetee 960

getttettet cetetetgtt actettette etcettteet cattetetea etteteetgt 1020 caatccgtac atactataat catccaccaa aatgtccctc gcagatacta cctacaaact 1080 caacacegge geegagatee eegegettgg tetgggtaag teeegtatae aetegaeeea 1140 ttataacagc taatatttgc aggaacgtgg caatccgcgc ccggtgaagt cagtgcagcc 1200 gtctaccacg ccctcaaagt aggctatcgt catatcgacg cagcccaatg ttacggcaac 1260 gagaccgagg teggegaggg cateaaaege geeetetetg aaggeategt gaagegetee 1320 gagattttcg tgaccacgaa actctggtgc acataccaca cgcgtataca gcaagcacta 1380 gatetetete tateaaaget eggtetegat taegtagaet tgtaeetagt eeactggeet 1440 cttgccatga accccaacgg caaccacgac ctcttcccta agcttccaga cggcagccgc 1500 gatctggttc gcgaacacag ccacgtaacg acgtggaagg gaatggaaga gctaatcacg 1560 aacaaccccg ataaggtaaa ggcgatcgga gtctccaact actcgaagcg gtatctcgag 1620 cagttgctcc cgcaagccaa gatcgtgccg gccgtcaacc agatcgagaa ccaccctgca 1680 ctaccgcagc aggagatcgt ggatctgtgt aaggagaagg ggatcttgat tacggcgtat 1740 agtcctcttg gaagcacagg aagtccgctg ttcaaggccg aagccattgt ggccgttgca 1800 gagaggaggg gcgttacgcc cgcgtcggtt ctgttgagct ggcattgtac gtatccctat 1860 cccataccgt actaacttcg gacctgaaca tatttgatgc gagtgagaaa tgctaatgtg 1920 tgcttgtaca gtggcccgcg gctcctccgt cctcgccaaa tcggttacac cttcgcgcat 1980 tgaggagaac aggaagttgg tgaagctgga gcccgaggat gtcgagttaa ttggcaagta 2040 ctcggcggaa ctggctgcga caaacgggtt ccagcgatat gtgtacccgc cgtttggggt 2100 tgactttgga ttcccggata agtcgtgact acatgggtcg aagctgtgaa taagattatt 2160 atacccgtgg ggtgggatag attgtatata aaaggaacta aatgactttt cttttgtttt 2220 ggttttgttg gaaatctgtg aatgaaatat accaattggg attgtacatg agaggaaaga 2280 caaaaggtat acatactctg tacatgatag cacctatctt ctccagatgc attttcgcgt 2340 ggtgtcatat cctatcaagc ccattattat ccaagggcat atcagggacc tgtttcggga 2400 acaatcaaga cattgacaaa gcaatcgagt caaaatcatg tcaagatagc tagaagtaag 2460 gacatggagt taatattgaa atccagccca ctcacgctca agcacaatct caatctcgac 2520 ttggccgctc tcatcatcat cccatcttcc actgccacca accaacttgc taataaaaaa 2580

ttegegatag cacagetece teacateate aggeagatge accaegnege ggtegeegtt 2640
tegaacteet ttgaggeate ettageaget tetttegeet etttggeege etteettget 2700
ttacetttgg gtetgeeett etteggaete geeegggt agtaggaget tggtgettag 2760
agteacegea eegacaceta egeeetggtg eeagaggaeg ageeagaeeg tacagtgtea 2820
tgetteeett egagttgatg aaagagggga geggegttgt teegaaeegge tggegeette 2880
gggteteege tegagaaeat egnetggeaa gggtegtge atgaeaegge tettgeagga 2940
tgaaaagaea actgagteag gatatneaag eeagggatge geagntaaat gaetttgegg 3000
geategeeta gaggggagga tttttteet tattaaatt aacattatet ateettetat 3120
teaaettttt t

- <210> 912 <211> 3691
- <212> DNA
- <213> Aspergillus nidulans
- <223> unsure at all n locations
- <400> 912

accatatgtt ctccatcgca agcgacettt cggatetcac ggtcaaggcc aagatcacgg 60
agacactcta cactttgtag attagcattc gcaagaatac cagatgaaga agaacaagca 120
gaacagagcg cagagaagcg caacataccg agagcagcca tgttggtgat gtgtgctcga 180
ggcgtgtctt ccgtgccagg tgctgcactg atcatgattc ctttgagtcc tattctagag 240
ttagtgcttg attacatact gttaagtaag tgtagataag tgttaaatga gaaaagaaaa 300
tatggaagaa aggctctaac taccgtatga tgtgagaaaa caggccaaag aagctcctgc 360
tggacctgca ccggcaatca ggaattccgt ctcgacaatg tcatctacac tggcaccaga 420
catggtattg gtatctggga tggcttcaga tgcatcagaa tttgttagaa atgaggggtc 480
catcgtgagc tgcatgcgca ggtctttgcg tgtttagatt cagtttacaa aaaaaacact 540
gcagcagaga atggagaaca acgcacgtct ttatccacat cgtcttagcc cgaggctctc 600
tcatccagcc cggcttctct tttctcctac ggaatcgcat gattgggcct acttggacga 660
tctgcattaa tccgaccgaa gaccctccgg ctgatcctcc tagatgtagg cacacctgga 720

acageetgga aaegaatgag egtaggaega tggataaggt eeteatttee ttgatgttga atagctttaa aaggccaaca gatttcattg ctggcacggc aaggtagtta attaaccctt 840 gacaagacca aataataaca cgcaccagac cagtctacac aacaaaatga cggcagcaac 900 gaageegata egtetegtee geetegeeea egtetgetae acacatgeag aceteaegge 960 agceteeegg tteeteatag attteggett eeaggagetg acceaaaceg tetegeegag 1020 caccggccag agaacaatct actaccgcgg caccaccacc cagcagccct tcgtctactg 1080 cgcgcgtgaa gggcccgagg acgcctttgg cggcgccacg tttgtggtcg aatcacgaga 1140 agaccttgac tatgcggccc agacgctacc ggggtcggag gggattgtcg atctggaagc 1200 agaaggtgtt cctggaggcg gactetecet cacattecae gacceggttg atgggtttee 1260 tttccatctg gtctggggac agcgaggacg agaagagcac ggggagaatc aggggggaaa 1320 cggcttgccg gtgttgcagt ataattttgt acgtgtctca aatctcatac ctctcttatc 1380 tgccattcat cgctgcgtct ggtcgacaga ggcaggactg acaggatgca gcctacagag 1440 aagcaccgac cgggaaatag cactcagagg ttcaaaccgg gtacttactc cctggcatcg 1500 cggcatcgcg gcatcgccta ctgtatacat actaaactgc aatcaggccc agctcccgtc 1560 cacaaactcg gccactttgg catgtgcgtg acggattttg cgcgcgccta cgagttctat 1620 accactcggt tcaacttcaa ggctagtgat gtaagtggca catctgaaat gtgttttata 1680 tcactcactg ggtgtgagaa atacgtgcat atgtgcaaac tgacaaacta tatatgaaat 1740 aacageteat ecatgatgaa geeggtaaeg atgtgaeege gtteetgeae ttgageegtg 1800 geegegaget egtagateae eactgettet teattttega agggeeeaag tggeatgtge 1860 atcattegte atttgaaaca catgattttg atacceagtt getgggeeat cattggttga 1920 gagagaaggg atacacgaat tgctggggag tggggaggca tatcatggga agtcagatat 1980 ttgattactg gtcagtacac tctttcccta cttatcgtaa taagggaatt cttctagata 2040 ttagaggtat gagccgacaa actgaccgat cttgtgccag gtttgatccg tcacgattta 2100 ttctggagca ttatgtggat ggggatttgg tggatgagac gtaccctact catcgctcac 2160 tegettegee ggataatttg catgtttggg gtgagteeet ttatttteat geceataega 2220 gatactggct ctggtgctga tttgtgtttc tagggcctga tctgccagag ggttttctag 2280 cttgaagcgc cttagctaaa ccgcacatga atcctgggaa aaggacaggg gtaaaggaca 2340

gtgtcggata aagaggtatc tttagtaact atagcccaat aggaacacat tactagccct 2400 atctatttag gttcttctcc tcatgtaatg tttatgccaa cacttcaaac acaccgagta 2460 ggggcattgg atcaccacga acaagataac cccctctttg ctacaacaaa tacatcaatc 2520 aaacacagct agaccacttt gtagatccaa ctagaaagtt tgattgagga gaggctgagc 2580 agactattac acctaggttc ggtggaatag attgcaaatc agccatgccg agagagagtt 2640 gccccgaagt tgctccagga cactccggct ggggtatgga gtatggggaa gctgggctgc 2700 cccagactgt gtgtggatac ttatatacac cttcccaaag ggtgttcagc ttctctgttg 2760 attecactte atetgeaaac teatettgae teageagaat atgaacteae tacetttget 2820 gcttgctgct gcctctgtag gctttctgta tgtgattctc accaaaggcc ggagagagaa 2880 gggcctccct cctggtgcgt atatattccc ttactcctga taatgttttc aggattttta 2940 tcattttcct aactgaatct ccatcatact agggcctcct acgctaccat tcttqqqaaa 3000 cctccaccaa attccggtta agggatctta tctcaagtat gcctatctga tttactttgc 3060 tgaacttggt ctctttgtgt gtaatcttct tctcgatatt ggcttacaac cttagattca 3120 cagaatgggc ctcccagtac ggcggcctgt actcgctcaa actgggcacc ggaacagcga 3180 tegteateae egaceeege etegteaagg aggteattga eegeaagage teeaaataca 3240 gcaaccggcc agagtcattc gttgcgcata ccattacagg cggctcacat ctgcttgtga 3300 tgcagtacgg ccctctctgg cgcacgatgc gcaagctggt tcaccagcac tttatggaga 3360 cggcggtgga gaagagccat atacatgttc aaaatgcagg ggcggtgcag atgctgagag 3420 atttttgtgt gaggccggac ctgcatatgc tgcatccgaa gaggtacagt aacagcatta 3480 tcatgagtct aggtaggtct tccgttggtc cagctggatc gagtggagct agggctaggt 3540 agactgacct gtggaaagtg tacggggtcc gaacgccttc ggttcatacg gcccatatga 3600 cgcagttata tgagatgatg gttcgtattc tttctctacc caacnaaagc actcaaggga 3660 tgccgactga ccgcgcgttc gttctcttga g 3691

<210> 913 <211> 4176 <212> DNA <213> Aspergillus nidulans

<400> 913

ttacgatect cacatgiting atagaaacga cattegatge egaetiggee gegiteaega 60 cgttgcgggc catgatgggc tgaattctgc ttgatgcgtt agcatgacta ctggtgtgtg atcactgttg cagtccaggt atcagaaatt gaaagcactt actttacccc gttgcactgc 180 tgggaataaa atgtatgtta cctgagcgac ggtacatcga cattgaggta gagacaagga 240 gcagatatgt ttctcggaat aatgatattc cgcttccgct aatcatattc gctgcaatgg 300 taagctgtta cgtagataca tggagtactc tcaaggtatt ctctaagaac ttgggacaag 360 taaggatata tatttattaa atcgtaaacc gagtccataa atatatatct gtgataggag 420 caaccaaggc aataaattaa atcagcttcc tagttactac aatgacgaca ttctcgcctc 480 gaagctcttc cagtaggaat gacgccaaac atagatgcaa actgaaaata ggtgttcgct cgcttataca gcgaactagt taggggctgc aattcgtcat atgcggatat cagatgcgcc 600 aacgacgaag accgaatatg cataaaacca acaccggaaa aacttcaggt ctcggctatg 660 ctgccctgga cctcttttgg catcgagaga accaattgct gcacggcctc cacagtagcg 720 tctggaccac ctggctggag aagaaggatt ttgcctgctt tatctataac gcaaacaccc 780 ctgatggttc cacgaggcga cttcttgaac ccaatggcgc taatcaaagt tgacgctgtg tegeagagta gggagtatgg cagattttge ettgatttga agttagtgtt ggettttgge gaatctgccg ataggccgta gatggccagc ccggttgagg ttaacttatc aaacccatca cgaaataggc aagcttgttt tgtaccttgg gtatgtcagc gtctggcttg tcaaacagga 1020 tgcagggagc gtttgattaa accaaattgc agtcatcgat aactgaccat cgagcgcaca 1080 gagtagactt acagccgggg gtcgaggcct tggggtatgt aaacagcaca acgccagctt 1140 tgctttcgtc aacaaggatc ttaagggtag tctttctgcc atcatttgtc tcaaaatcac 1200 caccaaagcc attcaagttc accacgtcgc caaccctcag tatactttca caagttaagg 1260 cggttgtgtt tccagatggc tttaatgttg tggcgggcac cttggttttg gtccgcttcg 1320 etgactgete tggaggtget getgtegttt tgegettteg eagtteaace attttgggtt 1380 tgtttgtggt tggagaaaga ctaggtgcga ttgccgaatt agagattgtg gaaatggttt 1440 cataaaggta tgagtgccct ttttctttgt ttatcgtact tggcagcatg taagcgggag 1500 ttttgctgtg cgtctcccaa gaggattcgt gctttttatc taagtgctta aagaggcata 1560 gtgtctaatc ttgacaaggg tgggagctct aggtcttgat ctgcaatact cccagaagcg 1620

aactagette aataagagga ggeattattt gaetgeagat ggttegaatt tttgtgttea 1680 tagtgaataa gatgaaaatc atatgtatgt gtgttggaca tgctcgaacc atccttagtt 1740 tatccaccac ctccgaccgt aaattttgaa ggaagcgtac atctagacag taatattcat 1800 gaagaatatt tgctaattaa gctgatgata taacgtaaat cccgggcggt aggtgcgtcc 1860 cgggcggaag gtagttttct catccacccc actgctatac aaactttcga tttcaataac 1920 ttgatcaatt cttatccaaa ctaaataaac taaggatgat tgggaacctg acagcttgtt 1980 cttttatggc cttgtactcc acaatttgta caccttgggg gggcgtgcct aagtctctcc 2040 gaagttggaa gggtactgga gcttgaaccc ccccaccag cttgtaattt attatttctt 2100 gacgaaataa ggtccctggc ttctttaaat gagagtccat ctgtaggagt tattagacgc 2160 ctagaacaac tcttttttgc tatattatct gctataaata agcagagatc cttgttttcc 2220 tgtaccagca acccagtatt gtaaatagcc acctcacagc cctttacaaa ttcatccagt 2280 gcctgttttg aggggcttaa aggactccta gagccctctt ttagaagctt tttgactgat 2340 aaagcttttc aatatacctg acagactgta taaggcgtac agagttgaga agaggggatt 2400 aaagcagtac ctctgcttgg ggggggaata ggagttaata gtcttaactg cagcttatcc 2460 agtactgcag caggtaagaa aggatataac ctagttaccc taaatctgct ttgaatattc 2520 tctattataa agactttctt ataggcttct gaataagcct ttaagaaatc aagcttgtta 2580 atatagttat atcctaggcg tgccttctac ttaatcaggg atctgtatac ctcttcaagg 2640 ggctaaaaca gcccacatcc aggggttgca ggaggtgaga taaataagga ggcatgcaga 2700 cagggataat gttattatcc ttgtatatag tatcaaaggc cggggtcaag tagcttctat 2760 agetgtetag aataggaagt atataeteee eeetttgeea eetetgtata getggaataa 2820 agcattttta aagccagcaa agcctaatta tatctatagt ctatctatta ttattaacct 2880 taatcctcca ggcatgtaga atagagagtt ccttaaacta tccctctcta tagtgctttc 2940 ccttaaagat aatagttgat agaactgacc atctagttga attaatatat ttaatagtag 3000 taacctactt ataatcccct ggctgtataa gccatagttt gcctggtatt tctgctcaag 3060 atactacttt tattattata attaggccca tagcaaagcc agttttatta aagttgtaga 3120 tattattatc tgatatccca tactcaactt taatcctcta tatcttatta aaaaataggt 3180 aaattatctt aggatcttta caaagtactc tctgataatt aatcttctga gcaaacctgg 3240

ttttgatttt agggcacctt tttataaact ctattaccca gttctttcta attagttaag 3300 ataaggttga ggatttatct aggataagtt gtgctatctc atgtatgcac aagggcctgg 3360 gagetgetet ataaatatea agtaataeta tetateetat eaagaeetet tettaatata 3420 gggatagcct atactggtag ttgtggagtt ctgcttgaga ttagcagcca taaagtctcc 3480 ctcaaagtat attgggatga attttatatg cacgcgctgc gggcgcaatt ttttgaaatt 3540 tggtattttt aatgtcttga atcgtgcatt ggatcctgcc ctcttgctca atcaaatctt 3600 gctttgtttt acgcgctttt ggtggcatga tggttgttga aagttgaggt tgataaacgc 3660 gttggggtgg acgagaaaac taccttccgc ccgggacgca cctaccgccc gggatttacg 3720 ttagtgatta gttatgaatt aagcactgta ttagtcaaga catgtgctgg atcagatgag 3780 cgctttgcca caattcggtt tctgccggaa actcccgatg tcgaaggtgg aactgtcqtc 3840 cccggtcaaa cctctggacc tttctggaga acaggaaccg caccactaaa atttctcttt 3900 cattecateg ceaettttga eteataettt geetttataa ggggtaggte eeetetacaa 3960 aataactgcc tgtgaagtct ttcgctcttt tgggtataac caatattttg cattcactca 4020 gactgaaata tccggcccaa cttcgtctgc ctggggattc atcaggagct ggttttttcg 4080 tcgaatataa cgctccgtct ttaagattac ctaagtttta gccccacggg tcattccgtt 4140 ctttgggcca gtgtttgact ggcttataga aatgaa 4176

<210> 914 <211> 2467 <212> DNA

<213> Aspergillus nidulans

<400> 914

caaggccagt gcaaggtagt gatgagatga aaggaactga taagaaatag caacaagaga 60

cgtaacagag gcggtgctgt ggtgcggtaa ggctgttggg gagtggtgat gattgtttgc 120

ggatgatgca agacaacgcc cagtcacccg acaaattgcc aacaatctac tagtacttgc 180

cagtttacgt ttagactgcc ctatatcagg caagtcaggc aagtcaggca tagaaaataa 240

agaaaatatc ctgatttctc atcttcgata tcatacccat ctacttcgct tgcctgcaga 300

tatcgtgatc atcccaccgc ctggagacat gtcatacaga ccgcaagagg ggcgatttct 360

gggtcccgtc tcgactccag tgccatgact gtggaacatc gagtttcaag tctcgagttc 420

ctgccaggaa ggctggcccg ggagctgact ccgctacagt ggactgtatt gtaagaggct tctttctcct tgctcctttg tggagcagtt ctgctgcagt tcggcctggg aggctgaaac 540 agcgacctat gcggacgcgg aacgtcatct cgatatcaga ctgccaagta tcgatttcaa 600 cgatttcaag gctgagagtc ttgaaaatca taagtctaat tcattatact ctgtagatag 660 tctatggcgt gtctcgcttg ctaatcatga tgcgaaatgc aaatgcgaat gcgaatgcaa 720 tggcaatgcg aaataacgat tatgccatcc gtccatccaa ccatcatcca tggatgggtg teggtgggtg teggtgggtg tegtgteaga teaeteteee geeagageet eteeeaeeea atccatctgc accgcactca cccctcgcgc gtagctgcgg ttggtaaaca caaattcgtt gtacaggatc gcctcgacct tcttcccgaa gagaacacta gatgggtgga ttgccactgt ctggttcccc accaccgtgc ggtagctacc gtcggggaca aggcgagcgg tgtttgtagc 1020 gaaccctcgc aggaagctct tcaatatgaa cacaggagac ggttctcgga tggacgagga 1080 gtctgagtcc cgtgactcgg tgggactcgg aagcagtttg gcctgtcggc attgagccgt 1140 cagttgcttg cggacgtcct aaggacccga atattagccg tgagggttgc ttagagacat 1200 ggtatctagg tagggcagca aacttaccat gacggactgc atcgcccgat gcgagaccag 1260 atgtegetea geceatgeet teeggteagt gtteteegat gegtaggeee gtaetgtege 1320 tagcatcgta agatggtcgc cttctcgtct gtatagatcg cggcgagctg cctcggccgc 1380 ttetttette tettetgaeg tggtgtttag aaatatgtte tecacactea gacacgatat 1440 aatatcaata acgtcagtca gacaatccgg tccaaagtcg gacgcggcaa gtaacacccg 1500 gcctaacgtc ggggtgagcg gaagtttggc gatgtgcgac ccggtctcac tgatcttgcc 1560 ggtttcatcg agggcctcga tactcagtaa ttggaggagc gccttctcta gagcttctcg 1620 tggaggccgt gtcaggaatg ggaactcaat gacattgtcg accectcgag cettcatgtt 1680 gagtatcgcc tggctgaggt cacaccgtag aatctccggc gtattgacct catctagtgc 1740 caggtagtct ttttctgtat atagtcggta gcactggcca ggcgcttctc ttccagcacg 1800 accettgege tggatageag eggatttega gataggetta acaageageg agteeaatee 1860 aagccgggtc cggaactgct tgatctttgc ctttccacaa tccacgacat agcgcacacc 1920 agatacagtc acagaagttt cagcaatatt cgtagccaaa atgatettge gggtgegtgg 1980 cggcgcaggg acaaagactc gctgctgagc tgcttgggga agcgctgcaa aaagtgggag 2040

aacttgtate tteggtaatg aagggteeat eeetgtggea taetegttga eeagatttte 2100 caaegettea aeegteteet gteeegtgag gaagaceaga atgtegeetg gaateggtte 2160 tttatagtgg atetggaaaa tgaeetttag ggeageatea aeaaagteat geaegggtte 2220 eggegaatat ategtettga eeggaaaetg aeggeeettg atatgaeaca etgegatace 2280 atetteete gaetteett eettetgeaa tteeegaget ttgtateeet eeacaaaaaa 2340 tteetgtaga eteeteetat eageegtage aeteataaee aeageettga geggeaeace 2400 teeeetteee teeetette eagaaacaag gtteeteaag aaceeeatga eaaggteaae 2460 attgaet

<210> 915 <211> 2448 <212> DNA

<213> Aspergillus nidulans

<400> 915

ttttttttt tttttttt tttgaggggg agatggctca ggctgtctga cgtggaggat 60 accgcgggca gatatcgtca aagaaacgag cctgtgagaa ccaggaagct agtttggctg cgccctttgg tgtgccaagt aggtatggaa tcatctccga ggggggtcct ggagggcggg 180 gtaggcgtct cctagcaatg cagcaaaaga ggaagtggat tggggttttc tttgagctgc 240 agcagcagag gaggtaggca tcttcatagt taaactgttc ataatatctt gcaaagtctc 300 catglectga acatgeegee aggateegtg taaaaagggg tettgggagt eteagetetg 360 cagggcactg ggggaaggtg gtaatctgga gatcttgatg agactgtggg gctgtagact 420 gccagtagct ttgtagagca gatattgtat ttgcctttgc cctgtgttta agagaggcaa 480 atgagtgtct gtgtgcaggg ggagggtcca tagcagctcc tttctttgca gcttgatcgg ctgtttcatt tccttctatc tgggcatggc cgggcaccca gcatactcgt acagagcctc cattagtata ggagaacctc tctcgtgcgg gccaggatgc agctagggat tggaaggatc 660 taaagacctc ttgggatgag cctgtaaagg gtgataggag tcaagtagcc acctctagat 720 tatcaaggaa gacccagaga ttagtggcaa agcaggctgt atatagcctg aaagctgctt 780 840 tagcccctgc taaagctgct tcggcttcgg tattaaaaac ctccttgttc gggcctaggg agaaagaaga ctgaaagaat agctttccag actggtatag ggcaaagcca gagccggcca 900

tcccatttgc tagttttgaa ctgtctgtaa aggcctttat atcagtctga gggagagagg catagaagtc ttggaagtta ctagcttgct ccttgttagt tgtaggggcc ctgatttgct 1020 ttcaggcagc tgcccttgtc ttatatggga gccatggggc atattatagt aggtttagtt 1080 gctctgactc tggtagagct aatacacggc gtgcgaggca gctggttggg tgtcctcttt 1140 aggtgatect etetgetete ttgeagagtg ggtaatataa gteeagetgg tagaggeata 1200 ttattgctat agctgctagg tggtccagct taatccttgc tggtagaagt ctggactccc 1260 ggtaaagtgc aggaagtggt attgtttggt agacagggag gattgccctt gccccagata 1320 ggattacctt ggttatcttg tcaagaaggc cttggacctg gttggagata gacccacagg 1380 ggctgatcca ggagcagcca ggctaccagg tttcagtgcc atagtagact ttttgtagag 1440 tacatgcagt tatggcttgc cgcattaggt aggggttaac tccttgtatt atatttccaa 1500 ggctgtgtag ggtattggca atagtcaggg cetttgaage cageteettg acatggtatt 1560 tetetgaaac tataacetgg tetgetagga etaatagtgt geagetagga teetggteea 1680 ccctgtatca ggagaagtat agtagcttat atttatctag ggtaaaggta atcccttgta 1740 tatagececa gteaaggget teetgeaggg aetetgaeag gttttgggea tttateteta 1800 gggaagggga tgttgccagg aaggccccat catctgcata cccaaatctg gcctttggtc 1860 tgcccagcca gaacaggggg gcaaggtaaa gcataaacag gataggggat attagcaagc 1920 cttgtagtaa gctgcagagt actcttatat caggccctag ttcaccatcc agtctaattt 1980 gaaccatgca ctctgtgaca aaggaggcta tccagcagac taggttgtct ggccagccct 2040 gggtgcatag tctgtgtatt agtctgccag gaaggaccct atcaaaggcc cctttgacat 2100 caaaagttag gagggaggct gtcttgccct ggtttagtgc ttgctccaca ttatagagta 2160 ggcaggtagt aaggttaaca gcagattgga caggcagcgc tccaaattgt tggctagcca 2220 ggactttgta gtagatagca atccatgaca tgttccgtgc tatcaaacat tcaaggcctt 2280 tgccaaggac tgagaggagg gcaattggcc tgtatgacct ggggtttgtc cagtctgact 2340 tgtttggctt ttgaataatg gccaggacag catggtgaaa gcaatatggg tgaaaactag 2400 ttgttagcag ccttggacag tgccagtacc ctgtcttaat taaagcca 2448

<210> 916

<211> 3839 <212> DNA <213> Aspergillus nidulans

<400> 916

tatacgtgtc acgacagacc aggggaatgc ggttgcggtg ggcacagaga cgagcgagtg 60 tgtcacttat gaagcggaaa gtggatgggc agtcgttggg gcttggggga gagctggtga 120 tgaggttgat atgttggggg tagtttatgg ggctgtataa agggagaaat cagatgagat aggttttggt agaagatgtc tcggataagt ggctatgaag gtagcttgaa tagctcttat ggctctgtat atgtgtatcc tgtgtcccct acaaaccggt aattcaggct taaaccaact 300 ccatccaata gccctgtacc tgagctttcc atgtagccgt ctctagcgga ggatatatgt 360 acaatcccac cccgtcaggc cagctgtcct aatcagacct tgataaaacg acagcaataa 420 tccagcagca ggcgtcttcc actgttctgc ctctggtctc gagcttcaag aattagtcca 480 agaaatgtct tatgcaaaca aaagagctta ttccgattca atgccaattc aaaaacagcc 540 ggatgtatga agaatgtatg ctctgctccc ccgattaaag aactattcga gtcacaacac aacaccaatc actgttgctt caccagccac catccggccg ctacaatgcc actcccccaa 660 agaacggtca aaatccaact gcccacccgg tctccggtcg tgatatgcgg cagcgcatcg 720 ggcgtgtcat cgttatatgt gtccaaaaac tgctccttcg caccggggtt cgtatcgata 780 gtcttggcca ccacgtcagt caacagcatg aggttcgcgg tgatcccgcc cagcgccgcc tgctgcacct ccagcccctg gatcccgtcc catgtttcct ggtaccagcg tgagccacag 900 aggttgctct tcccttccga tgatccgtca caggagcgcc cgatcgccag cgcggaccct tgcagcttcg gcgtgatctt ctcacggagc tcaggcacca taatggcagc catggccaac 1020 cacategage tecaceettt gaaatteage atatteetat egeaegtetg cageggeteg 1080 caggccacgt cggagaagat cgtgcccggg ccaatcgcgg tggtgtactt ggttggaag 1140 aaatgettaa aaacatggte gaegaggeee teagtgeggt tgegeeactt cacatetttt 1200 gtagcattgt acatatatgc tgcgcctgca atgaacgtcc cgtagttgta gctccactgc 1260 atgeggteeg catecaegea agtegttgga geeggaggtt gagteggega egaaceaegt 1320 attegtgtea ateageggae tggetgegge ceagteeeag atettetetg eeeagteaaa 1380 gtatgtctgg ttgttcgtga accgacccaa tcgggcggcc agctgaaaca gcccgccatt 1440

ggagatcgag ttgcggagcg tataccctgc ttgccaggga tgaatctgcc aggtgatgcc 1500 accytcycac gcacyctcyt cccatcyatt gycctycaty ttyaagacyg cycycyctay 1560 cgaagtccag gtgggcttgt tgctgacttc agggaagccg gtttctgagg ccgtgatggt 1620 agcaaggccc cagaacattt ggtcatcgtt accctgtaga aaatcagtat cgaatccaat 1680 tcatgcgaga atcgtttagt cctgcgcata agacgcaaaa gacgcaatga aagagacaag 1740 cataccagcc actgactgta attcgagtca aagtagtcgt agttccggcc cgcctggaac 1800 atcaggtcat gcgagacgac cgagttgtgc tcgttatacc cagagacatg ccagaactgg 1860 atcatagtca tgaacatcgc tcccgcgaca taccaggtat cggtcagttt gccgggaatc 1920 ccctcggtct ggttggcaag gtagtattcc cacatgggcc cagtgatggt cttgccggcc 1980 teettgaggg agtetagegt gegteaatat teaeagggee catagttaag gttgggatte 2040 catccgcact aacctttgga agtcacctcg atagggatat ccgctaggac gtgctggagc 2100 tggccttgca gcagcaaggc ggccccaccc agggacagca aagagcccca gcgcattgtg 2160 tggtggcggc accetgeaag ttetagtata gtacaatatg tagettagag teeggagtet 2220 gtctggagat aaacggacag tcgggaagag caccaatgca gacgcaggat gcggacggag 2280 gacgatggat gaagaaaagt cgcgcctgat cgggccaagg acccctaaac atagctgcaa 2340 atcacaccct gagataggtt cttggcacgc ttgccaaggc ctgctcagcc ccgggtggct 2400 aactcaagcc aatgggagaa gcatatttaa tagcacgcca agcctcattt ccggatgggg 2460 ttagtaaggg gcgtaagtga ttgctgagtc agtggcccct ggtacggttg cggaacaatg 2520 ttactccagg tcacgggatt caatgcccaa ggcagtaatc ctgcacaatg tcgtcgtcgt 2580 cctaccttta tcctccaaga tctattatct tacgcgcaag acttctttca tgattctgtg 2640 acgicaaget geetettete ggeetgateg egeactagie ateqtitigti qiccaqqitt 2700 gctctcgacc gggttcggaa tgatctcctt tgtttagggg atggattgtt tggaattact 2760 acgagtggaa tggactgcct agcctatcgt gccaaagctt acaacctgga cagagtgatt 2820 acagccatgg aagtgggcgg taggacgatc gcgcgaccgc taacatctgc gattatctct 2880 tgtcttaagg ttagatccgc ggtagcttga tgggggatgg cttaatgcgt gtaaccaacg 2940 cgatgttttg gattcagcca cggaccagcc tcatgacaga accgtgtctt aataaagact 3000 atcatgaget tggagteggg aaagatettt tttettgage tetteggaaa cagagagagt 3060

acattgagga tacgtggcgc gacttcctac tggccaatat cactttctg gtgccttgtc 3120
tggcccacga ggtaacaact acaaagagtt cagagtccct agacgaggca gcagtaattc 3180
agccttcacg tctctttaca tattcacctg ttgtacaccg atcgagattc gtcatgtcgg 3240
ggtcaaacgt cggctgcgcg cagcagcttt cacgccgact gctggacaat atccaatttc 3300
ccaatgtcaa ctgttctcta ggtctgaccg gctgtcagtc tagtcggcat cacaagttcg 3360
ctaccgcaaa ttcccaatgg ctacgtgcca tttttgtcga acgctggctc cattcttctc 3420
aggaactcga atccctgtct cagatgacac gctcaacgct gctgacggc tcttagctcc 3480
tcaacagatt ttccattgcg ccaatcctgc ctatcccaaa caggtggagg tggacaagta 3540
cactaaacta acacaaaaac cagtgtttat ctaacttggc cttatagtca atcgtcctga 3600
taaagtgcct atactagggc tttggcgaca attggacaat ccagtgacgt atattctgtt 3660
caggcgtctg taaaaccctt caggatccca tatatgccgg aattagggac aacttggagc 3720
cagcataaaa gacgtcttgg aggctctca cgcgcccggc cgagcattgg ccaaacgaca 3780
taacctttct tctccctcaa cttcactaga aaatggccgc aactcggttg gccctaaat 3839

<210> 917 <211> 4427 <212> DNA

<213> Aspergillus nidulans

<400> 917

gacagggtgg tatcgtccaa ccgaatccgg cggattgaca tcaatactcg gtgttaaacc 60 ctccggcgat tttcgttaaa tatctcaagc tgatacctgg gaccaaggta ctttccccag 120 ctcaaaggcc tcttcagacc ccgttcctaa gatgcagcct ggcctcagct tcctcgtggg 180 caactggccc tccgtcgtag tcctcctagg atttgcctac ttcctcacgg tccgtaaaac catcaattta totatoaatt cocaagaaca tatotaacto atatgaacag ttagootatg 300 gggtccgcaa gaaccctctc tcctccctcc caggccccca gctgacaaaa tggaccgatc 360 tgctgctgaa gttctacacc gtcactgggc agcgtccgcg ctacgtgcat gccctgcatc 420 agaaatacgg taatatttca ttcctcactt tgagaagaca ataagataat taacatgaca 480 ggccccgtcg tgcgcatttc cccttccatc gtcgacatca gcgacgtttc cgccagccgc 540 gatatecace geattgeaag ecegtttete aaggeeeett titaeaagat getegtgege 600

aaagatggtg agagtetttt etcaaceact gaceeggtgt accaeegteg geaeeggegt 660 ctcctcttct cacccctctc agacacgaac ctgcgcactg tcgagccact cgtgaaagcc 720 cggatccgac tggccattag ccggattcga gaagaggcgc tctcccgcgc ggtgttgcaa 780 acatetacaa gtggttette tteatggeaa eegatateat eggegaactg agetteggtg 840 actctttccg tatgctcgag atcggaaaga agaaccagta tatttcagac ctggagacag 900 tcgcgaaaat cggtggtatc cgggctaatt tcccctggat tatctcaatt ggccagattc 960 tgccgctgag tatcttcagg gaggtcgtcg tgagcacgga ccggattctg gagtatgcga 1020 accagtcggt ggagcggtat aagcggcatc tggcaatgaa tcccaatcag ccgaagccga 1080 ctctgttcac caaactttat gatgcgtcgc ttcacaagga aggggatggg gagtgcctta 1140 gcgatcgcga gatcaggaat gacgcgcaga gctttatcgt ggctggaagt gacacgacgg 1200 cgaatacgct gacgtacctc gtctggtctg ttctcaagga caggtccatc caggagaaac 1260 ttgtggaaga gctggatgta ttggtcaaga cgctgaacgt cgagcaaggg atcaccgagg 1320 aagaactete tgacgtecae etecgagage tgeaatacat gaaccaggtt ateaacgagg 1380 cactgcgact gtatcccgct gtaccgtcgg gattgccgcg agttgtgcct gacaagggaa 1440 gtactetege tggacattgg etteegggtg gtgegacagt aacgaegeaa ttgtacteae 1500 tccatcggga tgaggaggtc tttgaggagc cggaacggta cactatttct cctcctctt 1560 tgcagccagt ggggcagtaa gctgacaagg gtagattcga cccctctcgc tgggaaaatc 1620 ctaccaaagc catgaaagac gcctacatgc cgtttggggc cgggtcgcga agtacgtact 1680 tateggagee egattettet teggttttet tetttteatt tittaeaeett etetgtttet 1740 ttccctttac tgaagcgcta atttgggagt tgaaacagac tgcattggac tacatctggc 1800 aaagatggaa ctgcgtcttg cgacggcata cttcttccgc tcgttcccga gggccaggat 1860 atcggctaga gaagacatga acgatggcga tatggagatg atgctgtact tcctgctctc 1920 gcctaaagga aagagatgct tggtggaagt gaattagtct agtggctgca gttgcatggg 1980 ggatagggcg gtggtttaat tagggctaga tcgataggat gatatcattg gccgatttcc 2040 ggcgtctttt ggtgcacgtt gcccaagaac tgaggaagaa tggtcaagca catataatga 2100 aagccgttat gatgcgccct tctgttctgg cagctttctc ctctggaatg agctttcatt 2160 ggcctttcgt ggtcaaagcc ttcacgtggg gttattcccg tacggaatct gacctgttat 2220

caatctttcg gttcattgag cccgcggccg cataattgag ccgagcccga gtgcaagtgc 2280 tagactagca aggtatccct gtagaatggc gaggtataga atggatagta tgacacgtta 2340 eggtttacte etteegetgt caccecaatg tetgaetaae tgteagtate egetaattat 2400 ggagctgcct ggagccgctg agtgagtctg tcaccagagt gatgacgact tatatccaca 2460 atttaatttg agctacggaa tgtttctttg aacagttagg cctacaaccc ttctacttga 2520 cactgcgatc tgagtccgac acttgctgag ggggaattgc atggcataca tatgccacta 2580 gagteteatg gateateate tetteagace gggeeegeee caatattege etaatttaet 2640 ggactcacta agtacaagaa cccagaagct gtgagagcca tgcctgaggg attgaaggtc 2700 gaattgcgat ggcttgggat cgcgttcggc tttgattgag aactttaaag cggaaaaaaa 2760 gtgactgtaa gactgtgaat tcagaagcca aattatattt aagatactgt tcatgaatgc 2820 gacctgtcca gtataatctc atctgtcccg cagacatact ggtcttgtaa tgctgttgaa 2880 gtgtggcgtt ctcggcattc ccccacttgt cctgtcaagg tcgtataatg aggaggattg 2940 ctcgaatagc aaccttctac gggctgcgcc ttgaagagga atcataactc atctttccta 3000 cttgtactta gcttgccgcc gggcgctgcc gaagagtccc cgaggccagc agtcgttgcc 3060 ttgaggtgcg caaactcagg agcatcctca cccaagcccc aagcaaacac gccaccgagc 3120 tttctcttct ccaaaatagc aggaaacttt cttttaatag catttgctgt gtcccacgac 3180 cagaagatgt tttcattcga gtcccagaag taatagccgc cgccaaaagg atcatattca 3240 ccacttattt tggccttttc aaaactcgca gccagctctt ggggaactcg atcattccat 3300 gaaaatgcgc ctgcttgtcc aagatccgca cccgtatccg ggtcctccat taaaacagtc 3360 ggacatccaa ttggctgttt tgcgcactgt tcgcctggca cggtcttgaa ccatttaaca 3420 tagtacgcga ggccgaggtt gagcttttca ggcggcatgc cggcctctat atatgcatct 3480 attgactcca gggacagctg tacgccagtg tgatgtttcg ttacagtgtc tcgtctgttc 3540 atgaggtcgt atgtcatcac gttgaggaaa tcaactgagg cgctgataga gggtatagtc 3600 tettttgtga aagecaaeat gtetegtgga aggeetggaa eggeggeggt tateagtttg 3660 tccgggatgg ctgctcgtat ctctgccaga agttgggggt atgctgcggt ttcccaaaat 3720 ttctccgagt tggggattcg tttgtagtct tcgccgttgc ctctgtataa ttttagcgtt 3780 aaatatcaag ccgctctata acgggcgata ggcaggaaaa acatacccag gatactccca 3840

gtcaatatct actcctgctg atcgtcagta ggcgaataca ccggtgatga aactactctt 3900 accatccgcc ccggtatcgt ccaccatccg cctaatgttc tccgcaaaga gcttccggct 3960 ctcgtccgtc cgagcagccg tggaaaatcc ctgcgtgtcg ccccatccac cgatggagat 4020 gaggattgat gttccgttcg agaattcggt acggacagca tcaactgtgg tgaagagagg 4080 ccagctcgag gttgagttcc tattgaagat tgacgattgc atgaaagcga gggcaacgtg 4140 cgtcacatct gagacgaggg atggttcagg gaccacgttg tgctgcctta ctctaggtta 4200 gcttgagcag agcgcaggta tcagaatgat ggccaactaa ccctgtaaga tacataatca 4260 gcttggtagc gtgtgtgccc tgtgtaaggg cgagaatgaa tatagctaga ctcttaagca 4320 acatcccgtg attatttgac cggttaacta gatgtttct ctgatggaaa gagttttgaa 4380 gagcgacttt cgaaggttta aatcaattgt tgctgtcga aaaagtg 4427

- <210> 918 <211> 2380
- <212> DNA
- <213> Aspergillus nidulans
- <223> unsure at all n locations
- <400> 918

eccceggggt ggttttccgg caagcaacga ettaagceca ataagcgcag tetegatate cctcagagcg ggcaaaaaca actgcgccgc ccatctattt gacaagaaat cccctcttcc 120 cagcccgcgc cacaaaagaa gccagctcct gcaccggcgc cggcacctcc cactgcgcca 180 atgggagcta tgtctctggg gccgaatcct gccaaacaat ctagtatggg gaagccagta 240 aaggaacaga aagagaagaa gaagcnccgt ttcttcagat gatatcattc atagcttcgg 300 cgtctcggtt tacattttgc ttcatcgcgc tccgtgatac catttagggt tgtttaagca ataaggcgcc atgatattca attaagtttt tcttgatctt gagcaaactc tttcgccctt 420 tcagccctct aattctcaaa tatagtacat gggtatcata gaatatcata atcataataa 480 gaacgtcata aagtaaaagg atattagccg gtgccaagat acctgagcac gtcgtcatct 540 tggtaaaaca actetegtag tetetecece ttettettta catecagatg etectteete 600 acctgcttcg cattcaactt ctgaacctta teettagact ttetetgtee agacacegaa 660 gagggaagaa cggctcccaa tcccactgtg tcagccttta atttcccctt caacggttcc 720 eggatacett etceagtage teetagaeee aaceggetat etggateeea geegtaagae 780

tcgaggtaac gaagcccgcg acgggtacgg tcaaggtgag atggtggatg tgaatgcgtg 840 agacagactt ggtgcgctaa agaagattcg tggggtttat cggcagctat ggaggaagac 900 agtgggagat ggcatacttc acacgtctgg cttgggtttg gcggaggcgc ggagtggctg 960 cggccgtcgg cagtgtctgc ggcgggttga gtggcagtag atagagaatc tgatgtcgga 1020 gctgtagttg tagtggaagt ggaagatgat gttgctgcct gctttggcat gacaatagag 1080 aggtatgtat tegetatget ageceeggta geagetggtg tggegggtge ggagttgagt 1140 gtcgagaget cagaggaacg cacgaacgge acacgettae gegtgataee tgegecaaag 1200 actegetgat etteaagegg gaggaagtag tettegteet egtatggeat ggetggegtt 1260 ggtgaggagg gggttgagga aggcgagtcc gtggtggtct atttcaggaa gtggcgggag 1320 ateggeeget attitigaegt tgitigeagag ettecettee geacectett gaeceteaca 1380 cagcetgeca ceeggtegag atgeceatee caattateae caegggeate geggaggget 1440 tatetgeeat tecatatteg tataeggtee teaaagteae geeatggate etecteattg 1500 cagccctgaa gtattacttc ggcggtgccc gcaatggctc cgagaggctg atgcactcta 1560 cgttactaac ttggtcaggg aggcacctcg ggaattggag ccactgtcgt ctacgaactc 1680 gcatcgcgcg gcgcccaagt tatccttctt acgcaacacg ctcaatcgga tatatttctc 1740 attgactaca ttgaagatct gagaaaagcc acaggcaacc agcttattta tgcagagcag 1800 gtggatctct cttctctcca ttctatacgg acctttgcga cgaagtggat tgacaatgtt 1860 cctccccgcc gactggacat gctaatcctt tgcgcgaaca cggcaaaccc cacggaaaag 1920 ataacggtgg atggaataga tgaggaatgg caggtcaatt accttgcaaa cttccatcta 1980 ctcagcatcc tcagcccagc gctccgagtc cagccacccc accgggatgt ccgcgtgatc 2040 atgacaacgt gttcaagtta catcggtgcg ccgaaactcg acttttcgca gctcgacgtg 2100 aataccatcc cgatccacaa aaaaacggcg ggtacaaaac cgctacgcac tcaagcatca 2160 aggaaggcag agcccaaaca aaagcgccaa tcgcaaattc agaggaaaca catctatggc 2220 cttagcaage tateceteat gattttegeg aegteettee agaaacaeet gaaegeettt 2280 aaacggcctg atggccaacc cccttcactc gttgtgatcc tcgtcgaccc tggtctcact 2340 cggaccccgg gcacccgccg ctggctcact gggggctcgg 2380

<210> 919 <211> 3524 <212> DNA <213> Aspergillus nidulans <400> 919

gtagtcttgc tttctggatt ctggattcgc agcatgcaaa ttccatcatt gcaacctgaa ctaaactggg atcagggtat ctgcactgat ctgtctgcaa gcaagatctc tccattcctc 120 tatgggaacc agaagtacgg agcagctagg tagaagtacc catgtgagag atcagacgct cagtctcctt gttcccatca ttagagcttt gtccccttcc accagcagga aaaagtactg cttgagccct cactcctgtt cagttctctc cagttcccaa ccaggaggcc cgcattccta agttcattcc ggttgccgtg atacagaccc agtaaaagcc agagaacagg atctctgcaa gccggcactt gcagaaatcc cccgattccc cttcaggctg ccctggtgtt tgctttcagc 420 tggatctgac ctgtcgtaaa acttgtttcc ttatttctcg acgttgccaa ccggcctaaa ctccctgatg gaccagcaag tagaagaact acccgccaat ggggcagtgc atccacgtac acagaacact gtgattatgc aactttgaat ccttcgagat atcccaatcg tctggctctc 600 aatcagctet tetgagateg teeagtatgt eteggetagg accategaca egtegatttg 660 tctcctcagc gatccccatg atgaagcagt attcggcgtc gagtcgaggc aggatgcaca caagttgacc tcgagtcttg ggcctcgaag aggtaagagg tgcatcgtcc gcattcttta tctgcaggag tctgtgactg ggagcggttg tcgacatgca cggcccacca gttttccatg caggetgate etceggatge ataagatgeg atgaeggatg ttegagetaa atgtaegtae ttcttttttg cgttagtact cggccacctg aagtctgagt aaatggctca taaatttact 960 tgagtattga ttgctgctgc ttctctatgg cgaactctca tgcgttgctc acaaccagaa 1020 ttaggatgcc tataatctga aattgtgatt gtgcgtacga ccagggtctg gggtggtaag 1080 cgaggaactg ttcgtgatgg tgtaaccggc gaagacattt acaagcattc aaaacgccga 1140 ttggccgtta acattatatc ccagcaacat ctggtccaat tccactttag acactgtaat 1200 gtgcattgat cacactagat agttgcacaa tcatgtataa gtcatgaact cgtcgcatcc 1260 acteggegte geggtagaag etggtaeeta etgtaategg aetegggtta tgggaataaa 1320 ataatacage tacaaattea tgaateagga teatataatt getagaattg etgaageaag 1380

gtattgtcta atggaagggg attgggttgc attcaagtat tcgttattac caaaggaggt 1440 tcatatacac gtatacatgt ttatatatac acaaatatat atatacatat ggatcgtcct 1500 ataccctgta ctctatcaag acgagcaatt gttcagacaa tcagctctag cacgaaaagt 1560 gctcgagtgc aactacgaaa cctgatttta catctaaact aacaatatgc tgtgatctat 1620 cgaatatcca tagtcatgat ctgactcccg tcactctcca gagactttga accagatcgg 1680 ccagtagacc tttctaagac cgatttacat agaaaacagg ttttgctcca actctaaaat 1740 ctgactacca gcaataaagc gtttctgcgt acagcttatt tcgcaaattg cgaggcgttc 1800 attgtgatca ctacttaatc aaaaccaccg tcgtcatgca tatagttctt acgcgcattt 1860 cccggatcaa agagcactag ttcaggcaga acattcttca gccgcctgat acatatgtat 1920 ctacatgcac ctgctctagt ctatagggga aagccctcag agcgggctct ccacccgcgg 1980 ctgcacttca gacatccgct ggctccacgt ctcgggatga tgtgagggtt cattcccggg 2040 agateegeeg aggeeeateg ateteaaget cacattettg atatgeggte teatgegtta 2100 gctgtgataa ctatgagcaa gccgtgagga ttggttgtgc ggaagggcac tgagttgccc 2160 cgggggacgt gcaactcaaa gctgcgtccc tgggataatt ctaatagaac agtgacgata 2220 taategtega gaaggaggea gegtateeag gatagaeggg tgetaceatt eeeaegeaca 2280 atgaggctga ggagcactgc gggaggtaaa taaccgtact ttggtggcga ggaccaatgg 2340 ctgagcgcaa ggtgaaacat gctgcaaggt actgatcgat gtgtttaaga caggctgagg 2400 atcccgagca acgatccccc ttttgaatat atacttgttg atgcggattt gtaatgatta 2460 tegeaageaa tgategeaat eegaeggett eaateteegt etggtggtea tgggegaega 2520 ggctggtata gacccgcacc ccttggtaga ggcgagagaa ggatattccg tattttgacg 2580 agagaggtaa aaccaagctg ggtctcattc taattctcgt tgagcatata ttaattcgag 2640 attgtgcgcg attgctccta ctatacggtg agtctagacc cagaagccca cctgcgcagt 2700 agtgagtagt cgtaccctca aggtctcccc aagcccaaag tgtaggcact agcatataat 2760 ccacaatcag tatggggcgt ttgggtagaa ttataatgcg atggacaaac agcgttattc 2820 caccegactg gatgeettga etgecagete ateaggeega atttgttget gtatgtaceg 2880 acggggacat ggttgttgag aggacatgga atatccctcc cactatgatt gtagagatac 2940 cccgactctg ccatgaatac cagacatcat cgcctgatac tcagactgtt ccgtgcgttc 3000

ggcgactcgc ttggagaggt aaggtagccc gttccttgct gggccctgtc tgatcaaggc 3060 ccaattcaca gccccggtta tataaagtaa atctgtaaag aatcattgaa gaatcatcca 3120 ggagctgacc aaaaactgca aattgatcga ttgattcgct catcgaggtc aattctccaa 3180 acgcaagcct ctccagctct caatgagtaa cactggaaga atcaatcgtt acgatacgca 3240 gatcgaacca catatatctc aataataatt gggcagagtc tccagcatcc ggcgcggccc 3300 aatattacgt gacggacgcg ttaccgactt cctctcctcc agcatctctc cgccgttcct 3360 accttctcc gtcactcttt agcatcatca ctaaaatcgc ggtgagctca caacttttct 3420 tcgcttctcg acagcattg agctcatccg ctctgctcta tgaccactgc gggccatctc 3480 gagtgctcgt tgtggtctag gagcaagagc tcatctttgt gccc 3524

<210> 920 <211> 3095

<212> DNA

<213> Aspergillus nidulans

<400> 920

aatctgtggc ttccggttgg ctacttgtaa ccaactgatg gtcagatgga tctgccgtct 60 gttttgattt gaattttccc tgctcattct gattctgtga gaggctgcat tcattatcac atttcatacc cggcgcctgc gacttcggtc acctctgcgg tctggcggtt agcggggtgc 180 gtctgagact cgtcagtcag cattcgagta tgcgaactct gactttgctc acctaagagt ttgcacgaga tgccgaaatc ctcctcgagt agagtttgca aggcttgaac cttggtcctt 300 gaagcccgaa agtggctcag tagtgggatc gatagtctgg ttgttgaaga ttttctcctc 360 caccttacct atggccgctg gccttctcca cctttcaggc tttcaggcac cctcggctcg 420 gattetgtat egteeggtae egaagetagt eetagetagt eaaagetagt eeaagetagt 480 ctcgtcaagg tttggcgcag cgcggttccg tgtaaagtac aaatttgaaa tacgaatacg 540 cagtactege ageoggeact teegeteage ecaggeteag aggetaaggg tgttggeget 600 tecteateat ettetteteg tegacetttt cetetttete tecetategg tgettetete 660 caacctcatt ctcagtcgtt cgcccatcag gtttatactc cggctccgtg gccatctgcc 720 teceteaega ceteetegtt ceaggittite etetegaetg etgegeeett geaettegee 780 ttgcatcagt gaaaccccct gcaacgtgac ggctcaaaga catcctcgtt tggccgctgg

agaccggagc gtgcgcttcg tttcgtcttc ttcgaaccga tctcaatttc cccgctcggg 900 ttgacgccgt cagcaccctg ctcgttgcct aacggcttgt tattcaagac cccttttctg 960 ccgcttccgc gaccgattta ttcgtcgcct tccaactctt gtacaatcgg ggggaaagaa 1020 agcagacgga gttcgatctg gaggaattat agctgagtct tgcccgcaag actcgccgca 1080 accatgaatc aaacacttcc cacgtggaag gaccgcacgc agaaccagtt tggaaagctt 1140 cagatecagg ttecatggeg gtecatecaa etgetegtee egeategeat geggeggaag 1200 ttaaggtcca aattgcgcag tagagcgtct cctacctcgt caatagcctc tttacagacg 1260 tegttatege etgeagacae actaegateg etceaaagee acegatggae ggtttaegae 1320 ttccaatatc tgcttctgtt gatcgtgggc atcttctctt tgaccgttat cgagtcgccc 1380 gggcctttgg gcaaaacggc cattttctcc atgctcctat tctctctct gatccctatg 1440 accegecagt tettecteec gtttetgeeg attgeeggat ggettetgtt tttetaegee 1500 tgccagtgag ttaaaaacaa cccgctacca gaccccgtgc agcagttact cacatatgca 1560 ggttcatccc aagcgattgg cgccctgcga tttgggttcg tgtcttgcct gcactggaga 1620 atatteteta eggegeaaac ateageaaca teetateege teaceagaac gttgtgettg 1680 acgtgctggc gtggctaccc tacggtatct gccactatgg cgctccgttt gtgtgctcgt 1740 tgatcatgtt catctteggt eegeeeggea etgtteeeet tttegegege aetttegget 1800 atatcagtat gactgcggtt actattcagc tgtttttccc ttgctctcca ccttggtatg 1860 agaatcgcta tggtctagct ccggcagact actccatcca aggtgatccc gcagggcttg 1920 cccgcattga caagetttte ggcategace tttacaegte tggtttecat cagtegeetg 1980 ttgtgttcgg cgcttttccg tcgctgcatg ctgccgactc aaccctggcc gcacttttca 2040 tgagtcatgt tttcccccgc atgaagcccg tcttcgtgac ctatactcta tggatgtggt 2100 gggcaacaat gtacctctca catcactatg cggtcgattt ggttgcgggt ggtctcctgg 2160 eegecattge tttetaette gecaagaeee gatteettee eegtgteeag etegaeaaga 2220 ccttccgttg ggactacgac tatgtggaat tcggcgagtc tgccctggag tatgggtatg 2280 gtgcagctgg ctatgatgga gacttcaatc tcgacagcga tgaatggact gttggttctt 2340 catecteegt etecteagge teettgagte eegttgaega teattactea tgggaaaceg 2400 aggcactgac ctccccacat actgatattg agtccggcag gcatactttc agcccttgag 2460

tagccacaaa ccaaactcga tacctgcata tagcgatete geteeteete cactgcatet 2520 atttacgaga eggegttaga acattteaeg acattetgge tttattgcat egageacatt 2580 tegacacata tatetttaat accetteett eggtgteeca gateateggt tegacettaa 2640 tgtacetegg teegaateeg eetgggatae tgtteetett teegeegeae tteaetgtae 2700 attgettgae attgegaaae egggttggge tegaacgtgg gatgggttat egeteatege 2760 tacacgeegt tgetecatea taatgttaat ggacacaatg gggetaegea teetggtgtt 2820 tagteetgga agaceateeg ataaceeegg teggtaacae tegettgtet egtgeteaee 2880 cagacactae tteaattete acttetateg teegetatta eettgaeetg 2940 teettattat tegtteegae tatgetatat atttatttt accattegtg tegategee 3000 ataeteetgg egettgggae tggaageatt tatattggaa aaaateaegg aatgggege 3060 ettttettet tgeaetteae tegetgtgea tagae

<210> 921 <211> 1246 <212> DNA

<213> Aspergillus nidulans

<400> 921

gtctcaccaa caacattcaa tggcctattc cacactcttg gtacatgagg tatagagttc 60

aagctcatgc tggcggtttg ttaatcgtat ctcgctttgc catgcgaatg actgtcggga 120

ttaagcaact gcggccgcaa tcgaggatct gacggccaaa tgatgagcat ttctagcata 180

agagttgggc aaaaaaactg cttacctggt gatatatggt ttgagaatat gaacggttcg 240

atggcggatt attttatgcc ttgcgggcta tgtaggtctg taaaccgagc cctagcctaa 300

ggtctgccca gatggggtaa tataccagtag tattgtggag caaaaaagaat gattcgatac 360

gctgttatct cattattaaa caatgtacga aggtaacccc ttagttctca gtccttattt 420

ttcagctctg aatgatgggg ttgtagaacc ggattcggtt gtcggggtca tatctctct 480

tcaacaccct tagcctctcc aatctccacg cctcatgccc gtacttctc tctactggtt 540

cgaatccatt cgcgtagtta acatacgcgt gagccttcct tccaggctgt ccctcattcc 600

acatatcgcg gacctcgtcc gcccactccc acgcctacct ttgcaactcg ctgtccgtat 660

tatccagcgc aataccaata ttaatcagca taagatggcg gtccgatcga aaaggatacg 720

cccaquetate tgggtcaaac gettecacae etgeagtget gtacceateg tgeteaatga 780
caccacceet tgecagggee egattgetge caattegeeg tegaaaacte tegaagatte 840
tacgeteege agtaacatta tacacetgaa gteetgeegt tgetgagaca ateetgtace 900
catgetgaca gacaacacte tetgagteaa ggeeetgegt agetgegate teegggtagg 960
geaggteece tgacteeta aacagegegg ggategegtt aaatggtgee aggagaggeg 1020
ctgcagette egeagageeg tgataggega aataccaceg gataaggggg ttetgggegt 1080
caatagtete gtteatgaag aaactgeeee agttttgege catatteace ggegtagace 1140
caaaccegtt ettatgeagg geatteaatg etetaaatag aaceteeage tgetegecag 1200
cccagacata gttgtggtag tgeatgtete egggeegegt agatat 1246

<210> 922 <211> 6528 <212> DNA

<213> Aspergillus nidulans

<400> 922

cctttgggaa attcccttgt tatttcggtt caaagctttt gccacaccca aagccttttg tgttcgggaa gtggggtata attgtcaagt ttctttgcgc ccactttggc ggggacaaac 120 tcattccgac gcggtatgcc gagggcaagg aaggacagat cggtggggag accgaggagt 180 ggctgcggta tcgctattac atgcatttct cggagggcag cttgatgcct tttctggtgt tcaagttggt cactgatagt gagttcttcg agtgtttttt tttgtgtttgg cattggctaa agateggtte tagetatgaa ateteeeeet ggteteeeat tetteetgag acceateeet 360 cgtatagtgg ccggacaggt tgaacaacaa ttcgtcaacc caaaccttga gcgcacactt 420 gactttcttg aagaccagct taagtccgcg cctggtggtg ggccgttttt ctgcggtagc 480 aaggttacgg ctgccgatat catgatgagc ttccccttgg ttgcggccaa catgagaatg 540 ccgttgaaag agaagtaccc gcgcatggcg gcctttgtcg aagccattga aaaagaagac 600 ggatacaaac gtgccattga gaagatcaaa gaggtagatg ggaagttcga ggcttccctt 660 taactctttt aagttttett teeggettae tegettaatg tttgttgaeg eagetgtata 720 taccaggeta ceaetgetat ateatataet acettgtace taatacaaga caetacegee 780 aatccatcaa tactaaattc taacgggctc ctttccttcc ggcgcgacca gatgtccttc 840

cctaactagc gaattgccac aatgcctgcc ctcaatccaa tcctccatgt tactcaacac 900 tgtccccgca atctccgtca gcgcctccct cgtgaagaaa gcctgatgtc cgcaaacaag 960 cacattegga aaegteatea acegeateaa egtateatea tggatgatet eegeegaatg 1020 gtcgttatag aaatacgccc cctcctcttc atatacgtcc agcgcaagcc cacccaactg 1080 tccactcttc aatgeeteta tegeageett ggtattgace ageggaeege gtgaggtatt 1140 caccaacaaa gcgccccgct tcatataacc caaattctca gcatcaatga tatgccgcgt 1200 ccctgccgta agcggacaat gcaaactaac aacatcgctt tccgccagca aagtcctcaa 1260 ctccacaatt tcacccccat actcattctt aaactcttcc gccggaaccg ccggcttcgg 1320 tctccccacg cccacaatcc ctactgtctt cccgtggagt gtcatcccaa ggaaaccctc 1440 gagattgaaa ttcccctcgc gcacccggtt atatgcctta tggatgttcc tgttaagtgt 1500 ttgtagcagc gtgatcgtga attcggcgac tgcttcaggg ctataagagg gtacgttcgc 1560 gacgaacagg ccgagttctt cggctaccac gaggtcgacg ttattaaagc ccgcacagcg 1620 gaggaggatt gcgcgtgtgc cgccttcgtg taaggtgcgg agaacggggc catcgagagt 1680 gtcgttcacg aaggcacaga ctgccgcgtg ggatgcggcg aggggtgcgg tttcgaggct 1740 gagcgggaag gcatggtagg ctatgcttac ggtatttgat agcgttggat gggcttttag 1800 ggtggtgtca aggtagcttc tgtcgtagga ttttgtactg aagacggcga gctgaaaggg 1860 aggggatgac attitttgaa attatctaac agaaggtggc taaccaatag agctgatgtc 1920 gatagttett tgegtaatat ggggtgaega agtetgatat tgaggggttg aggatgttga 1980 ggggtaaaat atggggtgat gtctgccaag gtgttccaga ttcccatatg ccgtgggtat 2040 atggttcgat tagtatagca cagccctctc tgactttcga ggtggtgcaa atgcggtctg 2100 taaactcgac tcgaaagtta gtaaggtcta gttgaaggtc actttgataa tagtcttagg 2160 gttccctatc ctgcctattc gcattttgag tacaccatac cagcaacatg acagcttgca 2220 agtcgtgaat gaaatatatt cccgcctttt agtgcaaggg ctcagatgca gaaccagcgg 2280 acgcattgtc ctgaattaca caatacagcc cagctgtgaa taaaacacgc ccctgacgct 2340 ggtaggacga catagctgcc gaagcaatgt ctgttcatat ttgcacacga aatcaagcga 2400 ccaggttctt gcgggttaga tgaagatcac aatgattcga acacttcctc ttgcgggaag 2460

agtacacact gcgtctacca ccgaaggaaa cacaagcaag agcaatctaa accatgctct 2520 gtagatcatc gagctacttg aggggctatc caatcggcgt ctcatccgaa ccagatggtc 2580 acgatgggtt ggtggctgcc gaggctaccg aggctagctg agttatgtta tcgccactgc 2640 tgttttgccc ctacggcgaa gctagctccc tcggagtgcc ccggtggcta ccgcaagtag 2700 gcagcaaaca aatccccaat gatcgccaca gtgcatacga atacagcgat agtatgtgtg 2760 tegtggeeae agaegagtae gagaatgetg tgeteeecea getgtgaggg tetgggaeee 2820 tgaggtgatg aggettegeg tgagtgttga aaateegtet gataetetta tgeaegtagt 2880 atacggtata ctccgatcaa acatcaaggt gcatgccagg ccaggtctca ggtttataag 2940 tggccaaacg gcgcatcgat attagcccct ggcatgagcc gcataatcag acgtagaaga 3000 tcatgtaccc ggaatacaag cttgtttgac cgcggagata cccccaggcc aggatttgga 3060 atgagacatt gtttgtggag gatccctggc gtacgtatac cgtacagcta tcaaatcatc 3120 aaatgtttca gactcgcaat ctgtgaggcg gtccatgaac gacttgtgga gtggtgtgtc 3180 ctaagttcga gacctgttcc tcgaatctca acatacggaa cacgaatccg aaacccggca 3240 tgggcgcttc cacagccact gcagctgtaa aaacgccacc gacataaagc gcctagtaag 3300 cagacgcatc accgaggatt gtcagtagta acgtcccaag caggttctga acctgagcta 3360 acactaggtg gtgccgtatg gcgttcgacg gctcgtgagg cgaagtggat gtagttgcgt 3420 tegeettgtt tageeeatet gattteeggg aggegtaagg catetgeegg caettagaaa 3480 gctggtatgg agaagccagg ggttctctgg ggcttggcgg cggctcggtg aacgaggctg 3540 ccaaacccgc tacgataggc acggctgcat ctgcaaaaca tcgtcgggca tcaggaggtg 3600 gcaactactc acgcttccga aataacggtc gagggtccct ttggcccatg tccattgctg 3660 ttgggccgag tggccgaggt tcctatcgag atcgaggccg tgataacacc tagtttaact 3720 agtetgataa gategetegg tgaaageteg gtggeaeegg geeaeteggg agegttgage 3780 tgataggtcg ctagaatatt cgaccgggct tccatacccc attgttctcc gttgctaggc 3840 tgtcgctagg ctcattcggg agaacccaga attcttgtta ctaatcagcc acgaaaaagc 3900 ttcggcaatt atccgtgcat cggcaatggt cagattgccg gcgaatcagc gagctgcgat 3960 aaggegttea aegaeeaatg egaaggeaag atgaategaa teegteaget tggaaaegge 4020 cgtgctctgg actgattggg tgggccattt gggaaggccc acggatgctt gagagtaacc 4080

tcagacggct ggcagcctcc tcggtagtat tgaagattca gtggtgcacc agactcaaac 4140 tacccagaca gactatccag aggaagccgg tccccagagt ctagcgagtc tagcaaggga 4200 ggtgccgttg ctgaccaccc gcggaggtcg agcgtctctg caggtctccg gattattgct 4260 ggtgaacgga cccttgtgat gcacctagtg cacctgcacc ctgcaaagat gttgtcccga 4320 ggatgcttga tgaacggctg aacgcttccg tcgtggaggg aagccagaac gggcgggtgt 4380 gggccgggaa cggactggtc gcgtgtcgag caactgggtg gagcggtcaa ctgcaaccgc 4440, actgccaatg aggaccggcc ggattettet gacgetggtg ettggcetag tagcagcace 4500 aaatccaacc gaaccaaccg ccaaccgctt teggtgegag caatggatac ggggagaaat 4560 atggagattg gagattgcct gaaagggaaa gtcatcgtgc tgtttgcctc gacagtggta 4620 cagtggtatc ggcgtactac tacctttgaa gatcccgatc aagatactca gctgctcagt 4680 gettgecact ggaatgecag ceatgtgtge catgecagee gteteagaca tgtecageet 4740 gatgtccagg tttcccgggt cgcaagtcgc gagggggaca actcaaacgc gttgaggatc 4800 catggtctgt cccagggagt gaccgggtga gcgaccggga ggatggtcga ggatggtcga 4860 aaaggcggtc tggagtggca gggatgttgc caagttggat cgtgagtgat gctgtcatga 4920 tgagtcggac acggagcaaa ggatcaggaa gggaatgagg atggctatcc ctgcatgaac 4980 ggtcctgatc gtgtaactgg tgttacagac agtcagacag catccatgac ggtctaggag 5040 cgagatttcc gtcctggaaa caggtcaagt gctcaatact gagtgaggct ggactggctg 5100 gtctgttaga ctggttggac cggttcggta ctggtttgat taccggtaag ggaaatgagc 5160 tgccgagcac gatcaccgta cggtaaatat tacggagtat actacggagt actcttcagt 5220 actgtgagga gacattctgg ccgctggcgc ctcctgttcg tgcagccaac cagctcatga 5280 ttttaccggc agaacaccgc tgtttgctca ataatgtcca tcaatacgca taatacggag 5340 gtcgccagga ttcatcttca ggacataacc ttcattaacc ttcattattg tgagacgtct 5400 ecctgctggc tgctgcagtc caaagagcgg tccgggtcca cctcgggcct ttcttattat 5520 tagtcgagtc tcattcgtaa cagtatactc agagccatcc atcggccatt gcccggccac 5580 caccagcage catteceate tecatetett teegteteeg ttegagegae teceaettgg 5640 gegattateg teggeteeat etectagege acategtate tecateceat getecagget 5700

ccaccggcgc atggcaaact cgcccttta ttaatggca tggattcctc ttacattcgt 5760 ctgcatgcca gtgactgaga tctgctcaag tctccctcgc atcacattga ctacattact 5820 acattactac atttatcact tatcacatct gccgtgcccc tatcgtactc tatcgtcgtc 5880 ctccaccctg ctcctattgc tccagtcagt cccacgcggc tcctaactca aacgaagcgc 5940 acttctctggg tctcttgggg ctcgtttctg gctcatttct ggctcctttg gctttatcg 6000 tccttggatc gtccttggat ctctcaactc attgcctccg tcactggaac tttattgcgt 6060 tgcttgcctc tggtgttgcc actgcgatg gtttatgcct acatcaccta caccacatcg 6120 acctctagct ctgttcgccg cctccgtct cccttaatag ttaatcttcc cacactttgt 6180 ctccatcgca tccttcctcc aactgggtcg tgttatactg tacttatttg tacttatta 6240 ccggtctcc ctctcatcg catcccacg tatgaccgc accactactg ccaaatcacc accacatcg gtccaaatctcc gtctaccag atccgtctc cgtgcactcg ggcgccagca ctcctatcaa 6360 ccaaatctcc gtctaccag atccgtctc cgtgcactcg ggcgccagca ctcccgcca 6480 tcccaaggcg ccactgtatg ttcccgctcc tctgcgcc accactgtc tctgcgccg accactgc 6480 tcccaaggcg ccactgtatg ttcccgctcc tctgcgccg accactgcg accactgcg 6528

<210> 923 <211> 4932 <212> DNA

<213> Aspergillus nidulans

<400> 923

tcataccaga caataaaaca tgaagccata gtcagagaga agagggcgga gaacagatcg 60 gaggagaata gacacaactc gtgtagacat aatgggctgg gttactaata cttcatcttc 120 ccgacaagtc caaatgtgta cgccgcttcg gcttcacctt tcatctgaat catgtaaaca 180 cgagaacttc caatggtgac accacccttt tcagtaacag ggggcccgtc ttcgtcctcc 240 tcacgtacag aaacggcaat acctgttctt gcgacgcgct cgaagcagct ctcatccaag 300 caaacgtcaa ggaggacttc gccgcgtgtt ttcccgcgga tgatgatgcg tttcttgttg 360 cgctgctcca tgacccgttg cggcgaggca gcgccggagg atggcgggct gatcgcgtct 420 gtgcttgctt ctgggttctc atcaggcgta gttgttgcgg tgtctgcttg gtggtgttca 480 gccgatgagc gtcgtgaggg tgcgggcatg atcgcggcc catatcgcg 540

catttggact gggtttcgcg ggcgtagagg cggatcttcg cgtttgagag gccaattccg tcgacaccct tgatggctgc tgcgatgcgg ccgatgccac cgctgttgaa tccaccggag gcggcggaac tagaatataa gcttccctcg gcgtccttct tgcgtgaact gacggaggac 720 egggagatge tgaacatett getteeegea eegaagegtt ttagagegga gaaagegetg 780 ctcatggtgc ctacgctact ttcagagttg tctgcgaggg agcgcggaga ggcagaggca 840 eggtagetet ttetgeggeg gggeeageea aagaageegg agetettagt egeaegetet 900 aatggagctg gaatgtcgtc caacggtcct cgagcgtttt gtagagcgat gtatgtcggg 960 ttgttagtgc gggcttggtt gatcaggcca tatagaacct cacattcctc cgcgttcctg 1020 gagcggaaca tgatattatt gctccagctg actctggacc gcggggttgg aggagagcga 1080 atgetaatat egatggetgt accaeggegt atagggaeca geggegteaa ttegagagea 1140 ataatcgggc gaacattatt cggtgcgtta tcgccatttg caagcgggtc atccttcatt 1200 tcataggett caacaageee agggetgata atgacettge atteatetgg gaagatgett 1260 tcccaagagc ccttatccga ccaagcaaaa acagtggcga aagcagaaga cgacttgctt 1320 ggctgggatg ggacggatcg ataaccggcc tgacttgtcg aattcgtcaa cgatagagta 1380 ctcaggtccg attcttgctc ctcaagccgg gagacccctc gagaggtcct tgaccgtact 1440 ctagagggga tttcgtcctc tgagtcctca tctgaactgt ccgtaacgct atccgaatca 1500 gaatacatgt catagcggcg cacggtagag gtatcagagt cagagtaaga atcggacgcg 1560 gtggaaggtt catattcgtg tttcagaggt gaagaacccc gccgtctcat tcgtccagca 1620 gttggactca gaatcggggt gcctggcagg ctagagccgg tggaactggg cgagcgcgaa 1680 tggggagtag gcggtggagg cccatctccg tttgacgcgt cagattcgga gccggaacaa 1740 gaatgcctct tgctctttgt tggagtttcg ggaagaaggt tgtagtatat atcatactct 1800 tettetgget egggatetgg tatgtatgaa gtactactae ettggeggag ettgggaata 1860 gaaggcagat ccgctgaagg cactgaggaa actcgcggac tctccgtcga ttccgctcta 1920 gtgggggtct ttggggtggc ttgtttctga tggtgcgatg gaggttgctc cgcgcgtttg 1980 atttcttccc gattccgtga cggagtcgaa ggagacgcac ccgtaggcga gagagggctc 2040 tgggggccga gttcaccata tttagatatt ctctttgcgc cggagcgctt gagaccttga 2100 ggggacttat catcactagt aacaagcttt cgcgggtccc tggaatgaag aatcgattgg 2160

gtatttgcga aaggettaga tgactettte tetgtgagat cacagtetga ttggcgtgta 2220 atatcagtat gtgatgagac ctgagattcg gtagctgcga acgaatcaat ggcgctggga 2280 tctgaccatg attccttagc agtccaggag cgtcgcgatg catgggagga cgttggtttc 2340 tctccaatgg gaatggcaac gttcgttggg cttggaggag ttcgctgagc caaagagact 2400 tcatttggcg aagacaccgt ttgcgcgcgt tgtcgttgcc ttgcgcgttc aataaagctc 2460 tgagaccggg agatagcagg tggaataggt gttctaccaa gcatttgaat ccattccatg 2520 cctacatett ceteategat ttegagegat aagagttett gaaagegeeg tteeegteea 2580 ggcgggctgc gaatcataac cacaatctct ccctttttat ctccattgcg cgcagaaacg 2640 catccgatat ctatgggagg gaagagcaac caacggtctg catggtcaac ttcgcatata 2700 agcaaatctc caccaggacc atgctcagca gcgttatcac gaaacagaat ctcagaacga 2760 cagtcgataa cctggccact tgaatggtag agtgacaggt tgaagaaatc gcgggcacga 2820 actetgegag tettgtegat ggtgaeaece gteaaegete eeaaggtete aggateaega 2880 gcgcgacttg ggtcaatagc ggcagcgact cgtcctcaag cctagccctt tcttctcgcg 2940 cacgtcgacg agcctctact acaaggtttt gatagttcgt agatatctct tcggctttgg 3000 gggacggctc tagcatgttg atgcctttga aagtctttgc gaggtatttc aagcgtacca 3060 gcggccgctt cagcaaatag gcaacatcaa ccttctgtcc gtctccatcc acaatgtcac 3120 catteteate tetagacatg cegteatega gaetettagt ateggegtee tttacetett 3180 ccccttcttc tagcggggct agattaacca ccacatcttt gaaccctaat ctccaagcct 3240 tgaggtattc gcggtaaacc ttctgtgctc cctgtgccca ttgaagtaag gcatctgcag 3300 catcaagtgg aatacgcttg tgtaacagtt tcagtcgttc aatggcaaca cccatgttca 3360 caattggctt ggtgaaagtg agctcatcct gagggttcgc agaagggcga aagaggccag 3420 cagcaatggc cgagtcagag cgagaaagaa cacatgtcag aagaaccggg atcactccgc 3480 ccacaagggt cttgagctcg cgcatatact ttgcttcatc cagggatagt tctttcagaa 3540 tateggegae tgtgggtttt etatetttge tgeteeggag aeteetegea gaeeggagae 3600 teetgettet tgtggttgat gttgaaagaa cagacateaa gtegteatge gttgtaagtt 3660 tetteatitg egaggaaaeg atagetageg aatetggate eacettgtet ettteeteae 3720 ttgcgaaagt agtttgagaa ggagtccttt ttttctcggt accttcggac gtttttgctg 3780

acceptecea ggttecetgt egtttttgaa eeagegatte agaggtgtee ttgettggaa 3840 tttcagactc aaatggttgg gttccagcac cagatgctct ttctttatca tcgagcttgc 3900 ggctaccatc tttgctggtg ccagagggtg acctgccctg cttcttttcg ctagttttcc 3960 tetegetaga titeettgie eggagagaeg gegaaggate tetetgeaac eeettggtag 4020 tatgtttatc atctctcgac cctggtcgct cgccgctaga cgtagtctct ccactcttta 4080 ctcgccgctt ggaagttttc tgcgggagat cgctgcctcc cgaaggttca ggactagaca 4140 atcgagtttg gtctccttct gttggctcgt ccacaatttc aatgtgtttc ttccttctag 4200 tetteagegg egegggtatt tegacateeg aattettate gteeaagaat gggteaggeg 4260 Egitggacag ccatgetica attitggeae etegatiegg ageeggatge tigggitget 4320 ccggccttgg ctctgqttta ctaaacatct tcctcgattc qtctacaatc tqtccaagaa 4380 tgccaccett gggtggettt getggageat gtttegaagt atgaggtgeg eegegtgeae 4440 gtcgcctcga taattcagaa aagtctgcct cactggcagc ccattcagag tcgtagtcga 4500 gggttgattc cttttttttt ggactttgcg cgggttctga aattgtgctg gaccgcttct 4560 tatcagctgt tgaagggcgt gatgacggct tggacgaatt attatgtgac gcatgctcct 4620 tetecagett etegataatg gaateaatat egeeggaege atgegattte egtetetete 4680 gaagtgcccg tggcgaaacc gcaccgtctt taatgtcgtc tcgtcgcttt cgtggagaca 4740 accgcggaga cagtagaggc ggctctttat cgtctccttt tgctgatcgc gctggacgta 4800 atggttcgtt tgtggtgtac tccgggacta tacgcccacg tctcggtggt ggaggtttgg 4860 ctttgggagc ctgcgttgac gatcgattca gcttccagtg ttcatcacta accaaccgtg 4920 ttcgcgaggt ac 4932

<210> 924 <211> 3259 <212> DNA

<213> Aspergillus nidulans

<400> 924

caccgtactt aggacattcg tccttgatgg ccttctagtt cgtgtacgcg aaggtagtcc 60
gggagatcac gacgccgcca aagactccct gggcatctgt tagccgagca cctctggcat 120
cgctatcgat gccttacctg atcataacca tacagcgcca tgttagcacc gcatccgaca 180

accagaatgt caaccatctt ccgtgaaggg cctttgaagg cttgaaagtc tgaagaacat gggttgtctc ttgaacaacc aagaggtaaa acgcagtgac tcggccgtag ggtactagga catcctggta cggcatattc aagatttata tataaaagat gtactccact acagcctcaa 360 agtggctcag tagatgcggt ctccggattg agggacttgc catgcgttca atttttacct 420 480 tacggggaat gaaaaggtgg catgcttctg gtgccttcaa gttacgatgg tacgtagagt 540 acceacatet acctatttte ccatteaagg taaacacage atgagetega gaeggacaga 600 aagtaagate gteeageeae egaaaegagt agtgeagttt eeggteggte attggaegat caatggatte tetgtgatga tacetgaate atgaagtgge aeggeeetee aatgattege 660 ggaggatgac acaaaacgga ttttaggatt ttggtcttct ccgtcaaata ggatcctgat 720 attgcgtact cgaaatgagc actggaaacg gctaagtctt cagtcacagg atacactcgg 780 ataaagggta atgtagtatc gaaaggcaga aggcagagat ccctccacca caactctctt caaagaaact ttccataaca agcacagacg tgctgatttg tgataatgga cggctccgat ctcccctcac aaatgaaagc gctaggcagg ttgactcgga cagactcgat gctgagtgat taaagacgtt gacctgagac agaatattcc gcgcctagga atccccgcgt agttgacaag 1020 cgtctgcctg ccataaggga acacgagctg ctggtacttt tctagcttag tcggaataaa 1080 atcgaatttg aactgacgtc cctgtagata aaggtgaaag cgcggcgtct gcgggactga 1140 cttgcatatc cacgaggggg agttcggtgc gcaggtaaca gccaaagtac tactttccac 1200 ttcccgagta acttctgatg ttccaggaca cgaaactgtg ggtgtggctg cagcaatcgg 1260 ttcgaaagtg gaagggttet ccgtaggaga tcgagtggtg gcagacaact cggagctatg 1320 cgagagtgct tctactgtcg ccgaggagct gagcttttct gcgagaactt tatcgcgcac 1380 ggggttatgg gcgaaggggg gttcgccgaa tatgccgcct acccagcaag gagagtgttt 1440 cccataaagg tcatctcgga cgtggacgca accttgatcg aacctgcagt ctgcgccccg 1500 aagccatcca gcaattgcgc taatagtcat ctctaaagag gctattaatg ccatatgctt 1560 tgatagcgga gacgatgatg cgcctgagaa atgagacaaa cttcttgagg ccagccatat 1620 aagcgtcctc cccatctctt cgagtcactg ctgacatctt cgactgccgg gtggtccaga 1680 taaaccatct cagcgacggg cgtggatgag attcgagtag gcgacatccg catatggggt 1740 aagggcctcg tegattgcca tgggcttett geggeteett gatetggeet gaggtgttge 1800

tttcatttca tgcttctgca tcttcaacat cgaacagcta aagactgcag aagcaatcaa 1860 agggggatca cggcctagac tgctcaccga tgccgccgag aagcctcagg ttccgcggcg 1920 tatccatccc gattaatgac gcgccacagg tttacgccgc agctggtatg atgattcagt 1980 aacggetegt getgeeetee acagatteeg tggtaaatge eetetgagte teatgeeeat 2040 aatctctgaa ctcattttcc tgaataaatt ttgacgcctt cgcctcagca gagaagaagg 2100 atggtggctt tattcgcaac ctcaaactcg acgaggggct cggaagctcc gatctagtcg 2160 cgggactaaa ggtgctcagc attagtggtg gcgagagctt caaggggggg ctttcctgtt 2220 gggaagtgga actcgaccag taggtgatgc catagactct gctcaactct tgtgtgaact 2280 aataaatcaa gtaaattgac ggtaaagaga aggaagagag ttggactgaa ggaagcttga 2340 aagacagcaa gatctcaatc ttgagaagag ctccgttagc accacctctt aactggaccc 2400 tccacagcgg gtactcgttc agaagaaaaa tttcgccttc tctaccaaag cagaagttcg 2460 caacgcccc gtctaccaat atccggccta gaagctcccc caggggatca acattgccgc 2520 egteacegea acegetatat acattacegt etagategea ettgatecee tetggtttee 2580 cgctatcggc cattgctaat agacgccgga tggctaggag gggctaggcg aggcgagtta 2640 tatggtcgga cgccgctctg attggttgat agcgctgtcc agggatgctg tgccaaaggc 2700 ggtaccgtac ggatatacat cgtcgacacg cgtgcataat ccggggctgt ataacaatga 2760 ataccaactg tatcgggtac gcataccact tgcttatccc agctggagca tcttgcattg 2820 ggcctgccta agccaacttg cattgggcag atgctgcctg gtttaggggc caaagcttta 2880 accognttcc gttgctgggg cggccaccgg ttcccctact aatccaatgg tggggatttg 2940 gacacgatct cccatggtcg gacgatactt tatttatggg tcaggcgcgg gcttcaaatt 3000 cccttaaacg gtgttttttt tgggtaggtg taacataccc tggcctaaaa aatcttgcct 3060 tcggacgggt gttgaaggcc ccttttcttg gatgggggg tccgtggcac cttcccaccg 3120 gggtgagacc ttgctggctt tttttggggc gggcctaagt gttcggcccc tcgttttggc 3180 cgtaatattc titgtggggg tittcctatt tgtgtcgtgc tctttatcct gtctatattc 3240 tcttgtcatt ttgcctttt 3259

<210> 925 <211> 7044 <212> DNA

<213> Aspergillus nidulans

<400> 925

cggatattaa atcgcgacgt gaaaaagtct cgggctcttt tgtgcgccgg ttgtttctta 60 gatgccaccc aaaaatccca aaaaaacttg gtgacggtaa tattcgccat ccttccgtcg gtccggcatg gtcaccccat tctggcttct ttgttcccaa ggtagtaaag caatacgcca 180 agaaaccagc caatttagac cggccaaccc tatcggtggt gtggcccaca agcgaaggtg 240 tcagggcaag ggtacagggg aatattgtcc tcgatgctga tcgagtcaaa agtgaatcgg 300 cgagaaatat tgggcgtttc gtcacctgga ttgggaaaga ggtcgaaacc ggccagtctg 360 aagtaattgt acgcttaccg gaatacgaaa atgcccttgt tggatctgca tccttgcctt 420 ccatcaaggt tagcattcgc aacggccatg tgaatcacct tgacttcgaa gccgatttga 480 ttgctggcga cattgagggc ttgcgctccg tcgccgtcga ctggctggaa gggagactgg 540 600 accgtctatt acttcatgga agtgtcattc tccatatcaa atcaggcctg ctgagcctgg gagagcagac tctagatgac accgtagtgt ttgaaggtag gttcagtcga gatgaaaccc 660 tgtacttgct gatacaattg ccaggagatg acttcccgtc tttaccggct gttgatatca 720 cgaatctcaa cgtacacgac gtagactcgc ccgatgacca cggtgcaatg gcagttgatg 780 tttcggtctc tgcttcactg ggttctccgt tcgccctgcg cattccacca cttggcttca 840 aggecatggt tgccaactgc tegecaegtg atcettatat eteegtggea gaegtegtaa cacaggagat tgcaatcatc cctgatcgaa gcatcgaggt cgaggttttt ggtatcatcc 960 gaggeettte egatgagett acagegaaet gteeeggtga aaagaggteg eetetegata 1020 ctcttctcac gagctacatc catggttctc aaaccattat ttacgttcgc ggagcggacg 1080 tgccatcctt gggcgctcca agatggatga ccgacatcct taaaacggtg acggtaccgc 1140 tgtcatttac aggacacget etggataace ttgtcaagaa tttcaccatg accaatgtte 1200 acttcacgct cccaaaccct atggcagagc cggatactcc tgaatctcga cctacagttt 1260 ctgctctggt gaaagtgctg attagcgtac cggaacaggt gaaattcgat ctaaatattc 1320 cgcggatccg agctaaagcc gatgtcttct atcacgcgaa gaaattagga ttcctcgatt 1380 tgaaggaatg gcagcctgca aactcgacac tcattgggaa ccccgacaat acgacggcgt 1440 tgcaagtgga atttcccatg gataaagcac cgctcgaagt gactgatgag gatgttttga 1500

ccgacgtact ttcaagcttg atttttgaag ggaaacccgt gggacttacc gttgccgcaa 1560 atgtggatgc agaaatatct acggtccttg ggaagtttgc cgtccgcggt ataccagctg 1620 acggcaaatt gactgtaaag cgtaggttac atcatgtatt acgtgctctt tctctaaccc 1680 tcatatagcg cetttcageg gttcacatgg cetegeacea caagtegaat etetegaaet 1740 ggggtctacg acggagacct cgcttcttgt ggaaactata ctgaatttca cgaatccgac 1800 tcagtactca gcattggtgc cattgctcga cctactcttg gtctacaatg acaccaaggt 1860 tggccatctg acggcgagag atgttactat agaaccaggt acaaataccg gtgttaatgt 1920 gaatatgcaa tggagtcctc tcgatctcgg cggaccgtcg gctgttcttg ctggtcaaga 1980 cctgatttcg cggtttgtct caggcaagct catcttgact caggcagcca ctaagcaacc 2040 tccactgact catgttccag gcttgaatac ttcagtaacg ataaagacgc acgaaggaac 2100 tatcccagct ttaccgaggc ttggacaggc tctgtctagg gtaggcttcg aagtacaaat 2160 ccctaactta tctcatagtg gaggtcccga caaggatcca gaccaacctg gccaggacaa 2220 eggecaceag aactteatae aggaegetae ggtattaaet acetteetgg ataetgttte 2280 tcacgttgtc catgctattt gatgtaaaac gtatatatgt tggacatcgt cttttgtccg 2340 cagtatagat tttcttttcc caatcgcata tcggccatct aatagaataa aaccagataa 2400 ctaacttccg agtgctccca gctgcacctc tggtcatcaa cagccgagtt cgcgctttcc 2460 tcgcctctaa accatacaat cctggaagtc acttcaatag aagcacaggc tttctatgaa 2520 catgaccacg aagteggege cateaactat tatacteett teteaateet teeeggeete 2580 teccattege egeggettee tgttgaeett aatetgggtg gaateggeta egatgetgtt 2640 aagagggctg ttggtggtac acttgacttg gatactatgg cgaaagttgg cgttcggatt 2700 gagaattata ttaatacagt gaattactgt gggaaaggga ttaaggcgaa ggttaagctg 2760 tgatttcttg ctttaacgag gaagacaaag atttgaaatc cccggcattc ttgactttgg 2820 tgtttcgttg cgcgggcatt ggtattacct ataggcagaa tggaaatttg ggttgcccc 2880 ggcataccca gacacgagta gagcgtagac ctgattaagt attcattatc gccgaaaatc 2940 tactatgggt ttggcacttt atttcgagaa tgatctattc atcaaaaaga agcacagatt 3000 gctgttcggt gaataaaata gcgaaaggaa aaaaaagcca ccaaatagca gaagccgaag 3060 gaaagtcaaa tggttccagt ccaatgcctt tagaaaaatt tgaatcatca tagaaacaaa 3120

cacgcgaatg agcccagtta tttccattag ccctagtttc tccgtgacgc cgttccccaa 3180 ctccccgaat gtaaggtcgt gcaagtttgc ggtgtggtgg ttgtactgaa gcataggcgg 3240 atatggtaca tgctttgtgg aaagtgagag aggacggggg ttggcataag acgaggtcga 3300 tagtgttagt getggtgetg ttgetgatge tgttgtgeag acatagatte ategtaette 3360 gctcgtttcg gatcattcaa tccaggtgcg ggagtacatc cgttcccacc gggcaacgtt 3420 tegttggtaa egtegtteag aggtggtegt tteeegttea tatttggtge catteggttg 3480 gcggcggcgg tgttgttttg tgcagcagct ttagggtcaa cattcggccg tgttagagga 3540 cggtaagagg ataccgatgg acctetgtte atgggacege egaceaeact geegetgggg 3600 gegeegatet ttegatgeat ttetgeggag ggattgatga agtegegtgt ttggttggat 3660 aatggtgagg cgctaccggc tagcattggt tttgagatgg gtatgctctt ggtgtggtcg 3720 acgccggccg tcttgcggat agaagggctc tccgcgtgcg gattgaaggc tggggctacg 3780 gtggcggcgc tatgtggatt ttcacgtagc atgtcggctc cgcgggcgga gagaaatccc 3840 acgactggag gcccttgacc atttatgcct ggggtagccg ggacggccgt attttgcggt 3900 getgggtttg gttgttttge accatgttce tgtttgatgg gtacetgtge gecageatea 3960 gagectgtgg ccatgccatt actagcgcgt tggcccagtg gtattgatct tccattttgt 4020 agtcctccat ttgaaccggg gagcggaacg gattgtcttt gatttgtata ttgattttgg 4080 gcgggtggag ggaacggtcg gttgtttagg gcctggttag gaatctgcct gcccgctggg 4140 gcaaggttca tgggtctttc tggtttagac ggagtgacaa catgttgatt gccacttgct 4200 tgtgctccaa gagcatgttt tgggagattt agatgagcat taggtctccc aacaggggtt 4260 ggeggttggt gccttttttg agtgtcttct gctactatcc catcegggta ctcaccctca 4320 ccgacattga aatcagcctc atcaaaaaca tcacctgatc cgatcagcga cctagggtaa 4380 aatgagetgt acattgeate aacttactae egaatteege gteeatatea geggeactat 4440 tggtcgaagt gttccttccc gctattgacg gattgggggg cagatcgtcg tcttccagag 4500 acggetteae tegeattggt tettttttta tgggageaaa gtegggatgg egatgeagat 4560 cgcctacatc caattttgac tgcgggtatg tcagtgtcat gaactaaggc caaggaacga 4620 ggccacttac tggtaccgtc ttcagtttcg aaaccttgga aatgtagtcc ttgtcgtata 4680 tacagttgcc caaaacattg ccgaagttcc gcagagcgcg tttcagagcg tcagttgttg 4740

cctctttctt agccttctcg aaagctgcgg ccttgccctt gcaattctca atatgtccgt 4800 atccaagatc ctgatacccc cagcccatca acgtcgtgtc gaatatcgta gttcggctag 4860 ggattccgac atacctcgtg gtaagctcca tctttcaaag tcactctcac tattaccgat 4920 aggeccagge teactities agtatiogga gastegicaa cetaagicag tataticati 4980 agcaacgcat ctctctgcga gtagtcataa tatgcgagct tcatgatata tggaaccaca 5040 cttacgaagt caatctggat gttctgaatt gaactcgacc acccattgaa tccaaatacc 5100 tcgttggcaa gattaatgca tttatcggca gcaaggtagt gtaccttaag gccggccgcc 5160 ccaggtcgcg aagagatgta ctctggtcct aatttcttct cgaggcgtgc ttgaagggca 5220 gcagcttcct cgggtgtata ttgattcaat cgtgatgggg cttcctcaaa cgggtttctg 5280 gegatgacte etgttgeate tggeattgtg atgettgeeg ggeegeeteg atgttggteg 5340 ccaacgctga gacgcggtac gcgttagttt acgtagcctg tcggagtttg gtcgagaagt 5400 gatggtggac tcacgctggc atgattaagt ttatgaatag attactctat gagttactct 5460 atgagageta teataaggag ttgatgttet aacteatgtg gggtegetea ggettagget 5520 gaagcccatc gtggaaacgc gtcaggatgc cctgctatgc cgcgaagtca cgtgaagagt 5580 cacccatgtc ttccctgaaa tgcgtacatc ttacgagtag aatttctgtg tttgttatct 5640 egetetegae agtagteatg tecaateatt atagetatte atettaaaat atettgeatt 5700 aatcataata ttgtttcagc tagatcagtt tctcggttct aattctcgag ctgagccttg 5760 ccttattcga cgacaaggct cgcactaggt acgagtccaa gatccttgag tgactcgcca 5820 aagaactcag aattgaacac cttccttgga aagttctggc gaaagctgtt gacgtcaatt 5880 ccgtcctctg tcttgagagc cgataccact tcaaggagtg ttgtctctac tggcaatgtt 5940 ttcataacat tccccttcgg tgtctggaac cggaggcggg tttctgtgta agcagaagct 6000 ggtttagaag cgacaggtcc ggatgtcgta gctgcaggcg tagcggccgg ttgaacaggg 6060 ggtgcaagcc cagcacgttc agcettttca cgttcagetc tcagtcgacg ctccgcctta 6120 tccgcttcga ttctggcctt gacctggcgt ttggcttcaa tgtcatctaa tttctcctgc 6180 ttetteettg eegetteett taatetetge tttetetega gtteetettt ageateetga 6240 gactetttag tggcetttet eeggatttee tggageaatg acaactatta geaaaggteg 6300 ataatcacaa ccgtagcctc cgcgtacctc atttcgcttc ttgtcaattt tgtcttgctc 6360

tesattgtacg gegegettag etgecagett etecetgagt tecetgtagee tgaetteet 6420

tteetectee gteagegggg caatetette egttgaeteg gagaaateaa catgetgggt 6480

tttggaagea tggaactegg ettgtgeatg getteggaae tteetecae atteattgea 6540

ggteaagete egtgetteet eeeegggtt gagtgeagge geeeettett eatetteete 6600

ateageteee gegtttgeeg acttaatete etegagtgae ttgtettggt ttteetegag 6660

ceattegagg geteettgea etgeatttat ggagaatgaa aattagtatg tagetttggg 6720

acgagggtea agaggaaacg eaegteeget acttteete actgetagtt eagegegete 6780

tetateaaag eeeatteaa tgagetgate aatatetgat gtagteatet gaaatgtgga 6840

aattgtetgt ttegaatgtg attttetga agtgattget ggttgeggtg gtgttttggt 6900

gagtatgage agatgegeag tgttgtgttg gtgagaagae egtegateta tggeeeagge 7020

catgaeceat etattaega gtee 7024

<210> 926 <211> 5246 <212> DNA <213> Aspergillus nidulans

<400> 926

agattcatat attcatttct atctatgttg cgtagactta gccgaattac tccaaacaga 60 caatctagtg ataaagcgca gaacgaaatc gctaaattga ttcaatcttg ggccgcacct 120 gtagatggct aaggtcatgt gctccctgga aagtctcggt gatctcgtca agacaaccag 180 cagccgccgc gaagaaaccc aggaaactct tgctgggcgt gatgacgcgg ctcaggtact 240 ccgggtggaa ctggacacca acataccacc ggtggtcctt aagctcaatg acctccatcc 300 gcttgccggt ctcgtccttg ccaataaacg acaggccagc cgcctcgagt ttctccacga 360 gatcggggtt gacctcgtag cggtggcggt ggcgctccca gatctccttc ttgttgccqt 420 agagettgeg gaattttgae caeteggtge eeteetggaa gatggtaggg egettteeaa gacgcatcgt gccacccatc ttggtcttgt caatttccgg catgtagacg atggccggct gctcacattc ctcgttgaac tcggcactgt cggccttggt cataccgcag acgttgcggg egtactcaat gaeggegaee tgeagaeeea ageagattee gaggaaaggg aegttetttg 660

tacgcgccca ttcggcacac ttgaccatgc cttcagtacc gcgctggcca aaaccaccct 720 aattaatgtt agttatcatc gatgctgatc aaccatgtgt gacttaccgg aacaagaatg ccgtccgcgg tggaaacggc gtgccaagct ttgtaatact cggcaggatt tatagactgg 840 tygtcctctt ccagatgaga cgactccacc cagatgaggt taagtttctt ctggcagtgc 900 atagaggegt gttccaacge ttttgttaca ctcagatatg agtcatgcag acttgtgtac 960 ttgccaacaa gcacgatcga gaccgtgtca aagacatggt cttggctcat ggccaaaccg 1020 tgccatttgt gccacatgga cttgccgagc tccacgtact tgggctcaat gtgcaagttc 1080 cgaatttcaa gaagatcctt gatggtgttg aggaaccctt ggttttccag aaggataggc 1140 acctggtaag tagagggcac gttgtggaca ccgacaactt gatcacgctc cacctgacag 1200 gtaccggcga tcttgcggat ggtcatctcc tcaaggggag tctcgcaacg gcaggcgatc 1260 aggtctggcc tgagaccacc acttcgcaca tcgctaatcg ctcgttgtgt cggcttcgtc 1320 ttctgctctg agccaattaa aggcacgtag ctgacgtgga tctgaaggaa gttggccttt 1380 ccaacgcggc gttgaagttg gctcattgcc tcaacgaagg gtgcgctctc gatatctccg 1440 actgtgcgat attagtggcg tccctcatga ttggtctcag atcacttccc agttcctccc 1500 aactgcacgc aagaaggcct tagttagtca acgcttagtc atggcttcgt cgtagcttac 1560 ctcgactata ttcgtcagca agcgatactc gcaaattgtg ggaaatacat actgatgcag 1620 acgtcgggct ctcgtcctga ctcatcaata ggaacccgag caactcgttc aacccactgc 1680 cattgttaac ctcgcccgat ataccgatga acggaaactg acattttgaa tctcatttgt 1740 aagatgcggc acgatttgca ctagccgggt cagctccgtc agccacaaac acgccgaacc 1800 acgtacccgt ctttcccaag tagtcacccc ggcgctcctt ctcaatcaca tgttggtaaa 1860 tettgeeggt agtgatattg ttgteeegee egagtgtgae accaaggtae egetegtagt 1920 tececaagte caagtegget teaceteeat egtecaagae gaageattet eegtgeettt 1980 gatcgtcagt tacgcagtcg gtatgggatg acggggacgt actccaaggg ctaaagaaca 2040 atcattcatg atcagcagcg cctcaagtca cacgcgagat gggtacgtac gttcataagc 2100 ccagcatcgg gattcaagta gggatcaatc ttgatgctcg agacggacaa accagcagtt 2160 ttcagcagca gcccggtact gcttgcgata ataccettte cgacaccgga tataacgeca 2220 ccggaaacca gaacatactt catcttggcg aatggaagac tcaatggcgg cctgcctggc 2280

gaataccagg gaggtagcaa gagataaaaa aaaaatcgat acgcggggcg tgataaccac 2340 ggatttgctc accgcctgta aacagcggca gaactttttt gttttcaagt ggggagctgc 2400 cgctctggta atggtgcctg aggctctcat cagatcactt cacctcaaat tcagtatttg 2460 gccctgttag tttatcagtg aaatttctta gaagaaaaca gtcttatgca tttggactcc 2520 agcccaggca ttcattataa accataatgg acaatggcat gtcttgaaac tcttggatgg 2580 tcggccgcgc cgctaataga tatttgcaac tgctctagca aatatggtcc gcattgattc 2640 ccggctacat agagcttcaa gcttactgac gagggacata gcagtacaat gatttataga 2700 aatacaatga tttgtgatca ttataagcga cccaatatat tgatgcgctg actccgcaac 2760 tcatcaaaaa taacattgcg ctggcggtaa actggaaagc ataatctatc aacagagcgc 2820 gaaggaaact tagcctaagc cttcatcagc tacagtgact aaatggctga taagatcctt 2880 gcaaaaaact gtcagagtca tgctttcaat ttgaagaaca actgcttatc aataaggcag 2940 gaacatgact cactgctggc aattcactag actcgtgacc taggaaccat cgctcctccc 3000 tgatgaggca ttaaggggag ggaccgtgtc caataaagca attatagaat gagctcaaat 3060 catccctaga tacggataaa ccttaaattc tctgctgttt aatctgttct tgacctccct 3120 ccgccgattc taattctgaa gttgcccaac caccatttac aatgtcgaga gcattttcga 3180 ccactgcccg acggctgaag gaactcaaat gacaaccgtc gatgccacct gggttgagcg 3240 taccacagaa aaagcagtag atgaggctcc tggactcgcc ggcaaagttg acagcggaaa 3300 ggtccagtaa gtccatcctc tacttctcat aatattcaaa gcccatctac aaaaatagcg 3360 gagaccetea tecaaegeet aaaaeegggg acceatttee tgegtegate tetettggea 3420 taaatgacat tgagggacag aaccgtgttg tactcgcatg tttatcccga cggtattgtc 3480 aagttttcga agacatatgg cgaggtcaaa gtcgacgccg acccgaacgc tccgaaggag 3540 gacagtgett egaagtaatt gteaaatgag etgttttatt eteaegteaa teeggaacaa 3600 gcacatgttt gccgggcggg aaggaacaga ttaatgtgga aagggacgga caattgtcat 3660 tattggatgg ccgacatggc ctatctatat ctagcttacg atggactagg cgagctcgac 3720 ccaggggcag gtagcatcgg atagcagtat gccccgccaa tcaatgtgtc gcacgggacg 3780 ttctgtggac tatcgggagg tggccagcca ggtacgggcg ctgaagtagg tcatgtgaca 3840 atatctgcaa cggaatcatt aaatcgaagg tctaaatatc ctatctgcag tctgcataga 3900

gatttatagc tattatgaga acagettetg tetgtatgaa atagtagcaa tegttaatat 3960 ggcttattgt tctctagata ttggacagca cacttcgttg acagcaatga tttagagcag 4020 tgtatgaata tataaagttt cagtcgcatc ctaagccgat gtcagctctc agaactggaa 4080 ccccatttgg gtttctcata ccagattaga ttagtccaaa catcgccaag acatgccaat 4140 gctctataaa gactccggct acctcatcac ccagaacggc agcgtttcgt ctcttccctt 4200 tgctactica actcatccgc aaatataaac ccagtcttct ttcaqqqtac tcttaccaca 4260 gatatatetg getgteatee tetttetggt gagettaace ageagaeett tageagaget 4320 catcatcccc ttttttccgc gagctccact gaagcagcca aagccgttcg tccttacgct 4380 tgacgcgctt cctattcatc ttgatgatcg gtttgcggcc aaagaatcgt atgataaagc 4440 ggacgttctt ccttcactcc aaaccttttc aatttccgtc tcagtttgct tctccagttc 4500 cccagcacga agttattaac aaaaaggcct gtccgggtta caacccgaga acatgtctac 4560 cctgctaagc caggagagat acttgccaat cactatcaac tattggtgaa gattggttgg 4620 ggaacacgtt caaccgtatg gctggcgaag catttaaaaa ggtaggcatg atctctatca 4680 tgctccctgc gattataacc acccgctaac agacggatat tttatttaga tacatcaggc 4740 aacccgaccg ttttgtagca ctaaaaataa taaataaccg cagctctctc gatgcttatc 4800 atgagcgcga tatcgaagaa catatatccc gacaaagccc catacaccac ggccgtggta 4860. , tcatccgaac ctgcctggat agcttcgagg tgactggtcc agatgggagt catctatgtc 4920 tagcatatga accaatgcgg gagccccttt ggatacttcg gaaacgtttc gttgactgga 4980 ggctccccct ttcaatcgca aaggcatacc ttctcattct tcttgcaggt cttgactatc 5040 tecaeteaga atgeagggtt gtaeataetg gegagtaitt tgteeteagt tetecaetta 5100 acatcatcac tectatgegg attactgata ettttteea gttagaettg aagetegaea 5160 atattttgat aacgttcgcg aaccaagaca ttctcctcaa ctttgtcaag gaacagacca 5220 ccaatatgcc tatgcaatgc aagact 5246

<210> 927 <211> 828 <212> DNA <213> Aspergillus nidulans <400> 927

ccagttcata ggacatttca gaagaaaatt gaagcgttca agtggaaaag agaagacgta gtgtatgaca tttatataac aagttttgca gcaataagtc tcgttgaaat tagtacgtag tattttgaca aaatgagaga tctactctga gtctattgag atttcaagca tggctatcat 180 tcatttaaac gtataatgcc aacgacgctc aatcacaact atgaacaccg tcagttccag 240 ccttagcaga ttaggaatat gcaacggacc acattgagcc cgaaatagag ccctgattcc 300 gaaggcccga gagcaagcga aagaaaagga cgaaagatgt tgacccgcaa cattcgtcga atcgaaacat aacaaactgc acaccgaaaa gcaagaggga tatcaaggtg ccgaaagcaa 420 atggcgaata agctgagtgg agacttggaa gttgcgattg tatttgcgtg gatgtagtcg 480 aatttatgag ttcaccttgt cctcggccaa cctaggaagt agagggttgg tggttatctc gaactcccag acgacccact ccctcttcgc gagtgttggg gacaagcgta tcccacgagc 600 acagtetttt cetgegtett gtggeegege tggeeatatg eggtaeaagg gtegatageg 660 tgttggtggt agaggcagcc gcagacagag tagcgttcga tgagttggta gcacattctt 720 ggttgtttga agcgttgcag tgacgataac ggagaaggcg gagagggaag tggtggtggt ggtggtggtg gtagtagtac gaggtggctt ccatgatgta gccggagt 828

<210> 928 <211> 7337 <212> DNA

<213> Aspergillus nidulans

<400> 928

atcettgcga gggggatect tgagggtgtt etttageage gggcaaggee cattggtteg 60

ttgttagttt acggcgcggg cacaaataat actgaatgat gatttttte tacacecetg 120

cggccaatec accgggaget tattgcaage aggttgcgae acgcgatgae etagacgagt 180

cctcagecgt gcgaaacett aacggaaceg ggcccaetge cacagettta tacttgteee 240

gctacggtgg tacaggtage etetetgte caatteetea gagaatteaa tteaetgage 300

ggcatacate egegegaaca acgagatggt atggetetee gttetteeg catgaattae 360

tggatgaage gtcateacaa tgeettaaag etagtgaate ettgetggtt egaateacea 420

attacegatt acatggttea ecaegtgtt catategate teggategee etegatgaee 540

gatcageaga tatteetatt tecatgaeag gtagaaacea aaaaagatat ggetgeggge 540

tgcgtttcgc gatggtttgt ttctatgctg ttgcgcagag ctttgcaata ctgattaatt gaattgcgac tgtcgcgcta cataccacgc tcgtgcttct tgctggatcc atagttaagc 660 tccataacag atattgatat caaacagggg agaggcttgt ttgagccaac gtggcactca 720 taatgatcga cgatgaaagg taaatatcgc gatacgcttc acagaatcaa gatactcagt 780 tcgcagtata ctgtttcggc agccaaagct catactcctt cccagcacaa gcctggtcac 840 tcccacaaac atcctcatcg aacgccgcat aagtatagaa cacctccttc ttcctcacta 900 gatectetee geceaeattg getggeteeg aettgattgg atateceegg taegeaataa 960 cacttecegg aaagetegae gtaategeeg eegtattegt gaacaaacee geagaegtat 1020 ggtcactatg atctccactc ccatacggat gcacataatc caatgaattc agactatccg 1080 teceagaege ategaeegtg eggateegeg caategeeee ettecaeaat ttetetagge 1200 tttcctgccc cgtcgcgggg aatccattcc catccatgct cccgtcggga atatgcatga 1260 acgcaagact cacttetgge ttgggeegea gtgtatacae egggatatee ttgeeggeaa 1320 cccccgcgtc gctctcgtcc cagatgctct cgacacctgc catttgcgcg tatgctgtta 1380 gaageceage etgtegeage gteeagtact egtatggetg geetgegteg eetgaggtta 1440 ggtacacagt gcgcacgttg aatccggacg agatgtcatt ttggatatct gggttcaaaa 1500 agaggaggtc gtcgtccggg tgtgcgacta tgtttagggt atttgcgctg aaggctggag 1560 tgagcagcgt cagagcgccg agaagggtgg gtagtgggag tgggaatttc atatttcggt 1620 ataggtcaat gccaaggatg ttatcttgga tgaaatggag gaacagtgga ccgcggaggg 1680 agcgagcgac gagatatgag gagtgattta tgaaaatgaa ctcgtagcta tatgtgtggt 1740 cctggtcagt gatctgtttg tttactgcta cgccagcctg atttgtactg gcacattctt 1800 cagaattgcc gctgcattcc aagccactgt cgtgctgagc agctatacca ctcatgattc 1860 aagcaacacc atattccaaa gccgtatata cacactcgtt acaattacta gaacatatct 1920 gaaaaacagt gaatgagaaa ctgtacctca gtccaagggt agtaaagact agggctgtta 1980 taccatcccg taccctgagc ctgataaata cgtccgttga cagtcacatg aagccgctaa 2040 gcattataaa gaataccgca tccctttcgt agattgtgct gatcaaactc aactctcttc 2100 cactggaatg ctacaaccaa ggactaaggc gcgtccaagc atgtcaactg atgtcaggga 2160

cttgactaga ttcgagcagg atactgatgt tattggacta attcagcaga taaaggtcgg 2220 cttacatatt aggagcgctg tatgaatgtt cgaggcaagg atcattgttt acgcgggcct 2280 gagatgtctg attcgtctac tctgcctata tctgcctgcg agtattgaat ggaagtcttg 2340 teatgittet etigatitat eggeagetgi gaetgaeagg tattiegita egietgatie 2400 tcaatatact attccatgcc attgaaaaca tccctataac tgccatgctg atggtagtag 2460 tagtcagtct actcactgct gagcaaatgg acgaacgcct ccaaagcgat gaacaggata 2520 gtgacctcag gacgtgacca gaccatgagg aaatacacag gttatcaatg tggccagagt 2580 tagtgagaat aagetacaet caetagteat gtetgeggeg geeagegate aageetgagt 2640 tgcaggtatc ttggataaga aatattactc ttcatgatat gttgcttgtc aaagccccat 2700 gccggcttca ttgctggcga aaattcaaac ccttgcatga ccgggcaact gaacataaga 2760 tgcactette cagtteette gtetteette acgaattega caagaggtaa aagtaetgat 2820 gagatggtgt atttgacgaa caagaggcgc ggcatgcact gggctgcgta cccgagagaa 2880 acgaatagtt tattgatgtg ctcgaagtac atttcgcgat atccggcaga gccgtcaacc 2940 atgctatcct ctgcagtgat cccaaataga ataaacataa accctaaatg agacggacaa 3000 ggactagett accegtgeet teaacgagae aattgtegte ggaaagtata tgggtaagae 3060 agggccagac agggcgatcc cttttgggcc tgtaattctt atcgagcggg caccaaaaat 3120 caacaggtat agtcacattg tacagtttga tcgcgtggag gtgagtggtg atgcgtaaca 3180 gcttgcaaga gaagggatcc tcctcagggg tgaaccaatc gaggacgtac ggattactga 3240 cgcctatgac tegeatgetg aaattetega tggtggeagg caageegtee aageatteag 3300 ctatgactat atcctgttaa cagtcgcatc atgcacccca tgcaagctga atattacctt 3360 tgcgtcgcct tatcacggga gcctgacggc cggtaagctt aaatgcatcc gaatccatca 3420 ctagcgaacg cagattcgca caggattggg caatatggaa cggtgtcgct tcccaaatac 3480 gttgaaacac ctgtccgtgt tcgctgtagt ggaaagcgat ttcagccaca caatggacag 3540 taggaaaagt gaccaagtca gccgtagttg acgggttcgc catggatgcc agtcgtggtg 3600 cgcctgtgta gctatacgcc aaagcaatat caagctcgat cttgtaccaa ggctcccaga 3660 accgcaatgt ttgaaagagt ccagcgactg ctttcctgaa acctgcatca gtgggattct 3720 gegeagggte etgagetege gaegeggtet egeeeggtee tetgggaaac tgggtageet 3780

ggtaatgaaa gactagcttg cgaaccatgg cccttcgtct cacattattg agacccccaa 3840 caaagtgttt gaatctgact accgagaaag cgcgaggtgg tgtaggggct tcgttgtata 3900 cttgaatcgt gttgtagatc aaaggctcga gcagcttttg ccaacggcgg cacacaaggg 3960 cataattgca aagcgatcta ccgtcttctc gaaggtatcc gaagatgtgc agtaataagt 4020 caggcgtaag gctgctaata tggtcattgc tgacgcacag ttctagattc tggatcaacg 4080 attgcggcgg agacaggtta agatgatcca ttatgtaaga atgtaataga taggagagga 4140 agaagagagc gagaagtaaa catcttgctt gatagagtcc aagtaatgcg aaggaaggtg 4200 catttcagca tegacaacat tgateaegca ettgeeteae teetgteeag eaegaattgg 4260 gcttgatgag cgtaagtctc gctcaatggc taagcatttg aggaaccaga atgaacaagc 4320 ttgtactgag cttagtcgtg tatatgtaga aggaaaacta aatcttcact gttgcattga 4380 tagtttagaa teteaceeae tgttggetta etatgaeeee ategaggaea tegtagaege 4440 agagatgete aagacattgg tgteaaatet geaactgaca etgtegaete tgeaateege 4500 agtcctgcta tagcctttgc agtaattctt cctagatccc gcaagcttcc actattcagt 4560 atotgoacta ogcoaatato aaccoogatt ttoogttgga accagttgog catottgatt 4620 gcgagcaggg agtccactcc tagggatggc agtggaacat ccagatccaa gttggaccga 4680 tcacgctgca tatagctgaa gagagtctta ccaatctctg tactcaggag gtcaatcgac 4740 tegggtttgt caaggatate aggtteecc ttgagttget caagaaagea tacgagaate 4800 tgatcatcgg cagtatcagt ggtcttttca gatgcgcttt tggcagccga ctggttcagg 4860 ttgtgataga gggccatgcg cggatcccgc ctccaggacg ttcgattgtt ggagaatcca 4920 gcggcgctgt actacgcaaa ccgatgagca actgactttc attgacatat gtgggctggg 4980 caggtccgtt cctggttgtc gttccaaccg gtgaggattt gtcaatcgct aattgaaccg 5040 catcatggag atcgcgttct tgaagagtat acgtcgacgt agcgacgaag tggtcgatgg 5100 catgtgtctg ctcgctaaca tatcccacat cttccataac accaatattg attgcagagc 5160 aaggcaagcc aagtgagtgc cggtactgca caaacgcatc gaggaaagcg tttccagctg 5220 cgtagttggc atacccagtt tgcccaatga ggccagacaa tgagctgaag agaaggaaat 5280 agtetgtett geggetgtat ttgageaggg tgttgtgcag gtteeaggtt eettgaeact 5340 ttggtgcaaa tgctgcttgc cattgagcga aggacatagt ggcgaaagag gtcacttcga 5400

gcgccataga agcttgcatt acaccggcga tgggaatatt ctcatcgagg cctttgatga 5460 gcatgtcgac atcttcaggg ttactgatat cacctgagac aaggtcgagg cggcagcctt 5520 gagcgcgaag ctccaagacg aagtcatcat tttctttact ggctgcagag ggtgaaaaga 5580 aaacaaaatg acgtgcacca tgagaagcca tccatgagct gaccgagcga ccaaqcccac 5640 cgagtccgcc aacaatcaag tgtatggcgt cgttacggaa ggacggttct ctgcggctaa 5700 agcaagcagg cagcgaagac gactetteag geatgataat ageggetttt ceagtettae 5760 cctctttcat agacttgaat gcatcttgtg ccttttcagc tgggaactcc tgtagctgca 5820 acggagtcag ttcgcccaaa gcgtaatggt gcatgcaccg acgaagcaat ctagcatcta 5880 ttagcagata atttgattgc ttggggacca aaatcctcac ccttgaattg tctccggtcg 5940 ttttgcagca acctgggaca gattgaccgc acagaaagaa cggtttccct caaaggcttc 6000 cattggtagc tgcttgttga actcgccttg tggcaagtct accaggacgc caaattcggc 6060 gacgcactgc cacgaggcgt ggaatagatt gtcagaaaga gtatttagta cgacatcaac 6120 tccaaggccc gcggtcggaa ccatgagatc acgaacaaag gtgctattcc tggaggaaaa 6180 gatacgctct ttgggtatcc ccagctgtag cagataatct tcatctgccc ttttcgcgac 6240 agtgcaatag aactagatcy tcagtaagcc cgacatggca ttcgaaggga acttaccttg 6300 getecaatea tgegacaaat ttgaatagea geegtteega teteaetgea ggeatgatga 6360 atgaggacag actattagtt tcgattagca cagtttgacg ggcgaagaaa agatgaagaa 6420 tgacatacat cgccatactt caageggget acategatea gegegtaaaa tgeegttgeg 6480 aaggcgaagg gtatcgtagc tgcctcagtc cagctcaaat tacgggccat gcgcgcacag 6540 agcctctcac tcgtgacaaa cttcgtcgcc atgactccag agttaggtga tagcaccatt 6600 actegateae eggegegeag gttettgaet eeaggaeeaa egegetgaae egteeeagea 6660 cattcactgc ccagagcagc atcaagggtg ccattgacta ccaggagatc cttcaaattc 6720 atgccaacag cccgcgtctc caccaggacc cagtcctcaa caggtgcgga tatctccagt 6780 gacatgcgtt cccaggtgag agtttcaata tttcggggac tggttcgaag caccgctgcc 6840 gtttggtcag aggccgccct atccaaaagc tcctcactca caattgccgg ataatattta 6900 ccaaccatca gggtgccgta cgcgtgagtg tattccaaga cgggatcaag cgaggaggtg 6960 gtctcaagac gtaggacacg ttcggtcacc tcagcaatgg cgtcaattgc ctttacatcc 7020

aaggtatcca cctccagcgt agccactgta agtccaagct ccctgcgagc agtcctcaag 7080
agcccaagtg tcgccgcgta ccgtgggtct gaacatgcca cctgggatgt tctagttacc 7140
cacagcattg tcttttggtc aagagatgtg atcagatccc gcaaattcag gtattctgtc 7200
tcattcattg cgtgtagttg tggtccgttc agttccagta atgatataac catttgagtg 7260
ctgggcaact cctccccaag atgacgggta tcagttacga aaatcccgag tatggggggt 7320
agggcgatga caggagt 7337

<210> 929 <211> 2348 <212> DNA

<213> Aspergillus nidulans

<223> unsure at all n locations

<400> 929

ccggttatgt gtctagtgta ccatcatatt gaccggggtc cacgtcggct tgtgtaccgg cagtctgatt gaaggccaaa atttacatgc agaggccgga gatcgggatg atcgagtcta agatggcaaa gtgctgtacg tacaacgaag aaagaaagat aggcgggatt gaaggctgat 180 cgtaatccct gtgagtgcga gctggggcct acccagcggt cacaatttca gggactcggg 240 acgggctcag gctcagtcgg atggccgcag agcgagactg ccgtcgtcgt caggggaggc 300 caaagtggac taagcagaga ttatgattgg atattctcca cgcgattgac aacgagtttg 360 cgtggagtct gaagccagcg ctaggcatca cggaaggaaa aaggaatgca gatcagaggg 420 gcattgatga attgtttcga gccaagcttc tatcgtatat aagaaaacaa cggttgtttg 480 gtgatagata catatagata catcatgacg ctgtacatgt agatgcaatt gtacttcgca ggccacctgc taaagtgtaa acatagcatt aaggaatgta ctccattaag gggatatcaa taaacacatc gaaaagaata atacaggtaa atccacaaca agccagacat cgatcggtcg 660 ctctgctggt gtatgtgcca ggggacggac tttgacatgc tcgaccggtg ccacagaaag 720 attagaatta tgaattagac aggtactgca ggtgatgcca tcgcaatcgt ctcgttagat 780 ggtgagette tacceegege ctagaagteg gtagggeagg cetegatgee aaeggtettg 840 gtgacagtga cggtcttgat accgccgcag ccagcgcaag agctgctgga gggggagact 900 tcggtaggga tagcaggcac ggaggtggtc tgggagacag tgtaggaagt cacgctgtcg 960

gaggtgatag tctcacaggg ggtctcgctg ggagcagcag gggtctcagt gggctggacg 1020 ttggtgggaa cagcgggggt ctcagtgcca gcgggaacgg aggcagtctc ggagacagtg 1080 taggaggtca cgctctcgga ggtgatagtc tcgcaggggg tctcgctggg agcagcagga 1140 gtctcagtgc cagcggggac ggaggcagtc tcagagacag tgtaggaagt cacgctgtcg 1200 gaggtgatag tctcgcaagg ggtctcgctg ggagcagcag gggtctcagt gggctggatc 1260 gtggtgggag cagcgggagt ctcggtgcca gcgggaacag aggcagtctc ggagacagtg 1320 taggaggtca cgctgtcaga ggtgagggtc tcgcagggag tttcagtgga ctcggcgggg 1380 ttctcagtgg ggtgaacatc ggtgggaaca gcaggagtct cagtgccagc gggaacggag 1440 gcagactcag aaacagtgta ggaggtcacg ctctcggagg tgatggtgtc acagggggtc 1500 tcagaaggag aggcggagtt ctcggtgtcg gtaggggaga cgtcagtagg ggcagcggga 1560 gttccagcag ggatggaagg agtctcagtg ggctgagcac cagtgggaat gacagggagg 1620 aggggggtct cagaagcggg gaggcgncng gtgctgctgg gaacgctagg accgtgggta 1680 acctgaagaa ccgcccgcag cacttctggc agccagtgag ccagccgatg aggatgatct 1740 ggatagagtc gtcgatttca atgccgacac cacccaccga tgagggcagc gagctgggca 1800 cgagcetcaa gagagagega gagaacacet teaceacega ggatgaaaga gagaagaeeg 1860 tgaagatgag tgccgagcag cgagtcgatg gtaccagtga ggaaaccagt gagctcgcta 1920 atgatgttcg tggaaacgct gagggagagg tcggtctcag cggagacgcc aaaggagagc 1980 cagaaggcga ggagaccett gagtteggca etgagagage aettgetget ggegageeag 2040 agagagaget caacacgett gtcaaggteg atgtegaegg caaggeeace ettggegeag 2100 atcttaagaa tgtccagaat agcaacatcg atttccaagc ccacgtcggt ctggaggaaa 2160 gcctcgagct gagcctgggc accggcaacg agagcgccat tgacgccaac aagggcctcg 2220 agagatttac caaggeegat egtggeaata eeaceaaegg gaaggttgee gatgetgaea 2280 acgtcaccgc cgaccttacc ctcaatccag aggagaagag tcttcttgag actaacagct 2340 agagtgca 2348

<210> 930 <211> 5754 <212> DNA

<213> Aspergillus nidulans

ggtcgttttt gttgaaagat caccgtcaac tcctccagtg tacgcttact tgtctccaca 60 aataggaaat agattatcaa cacttcaaac gtgcaccaga atataaagag gaaataatac ttccacccaa tccgcgtgaa ggcgattcct gtcacaaagg tgttatagaa ggaggcgatg 180 ttgatgaaaa actacctcct ttgttagcca tggccatcat ggcacaaata cttgacgtgg 240 atgaaaacag aaccggataa agagaaaggg tgcgtacgtt attcattccc ataccctttg 300 cccggctctc ataccgcaga cactccacag ggtacatcgc ctgattcggc gtccacccgg ccgaatacac gaacccaaag atgaaaatca tcgcgatctg cgcgccgccgc gtgacgctgc 420 tetttgegae gaeteegeeg eegteteegg eaacttggae gtttgtegeg tteagegegg 480 tgatgatcac gaagaggaag acaatgatcg atgttgatac gaggagctgt ggacgacgcc cgacgcggtc ggtgatcagg gcgccaaaga ttgcgccggt gaattgtacg atattctgca 600 gaccttgcag caggagccgt gtgtggtttg aggatatgcc tgcgcccgcg agcatttgcg ggtagtagta ggagaccggg ccattgccag accattggcc gaagaaggct gaagatcact cattagcata ccacttcctc ggtatatgtc tgaagcgaag gattgggaga agtacccatg aacacaacga gcatagaccg gtaccgcgtc tctcgactat caaaaagctc ccggtagtcc caccaccgct tgtcagcacc gacgttggag atatcctcga gcatctcgcg gtactcaagc tgcacgaggg gcgagtttcg gtcaccctca ccatgatatt cggcgagcac gcggatcgca gcctcgtgtc tgtcgcagga gataagccag cgggggctct atggcattcg agtccagtga 1020 ttagatgctc ttcattctaa ctcgacagac ccagggtaaa ggaagggaca atatacctcg 1080 ggtatcgtaa aacagagcag caagacgagc ccggaaaaca ccatctgcaa ccagaccggg 1140 atgcgccaac tctgtgtccc gtcaatcgtg ctggtgcgcc aggggatgaa cgtccctggg 1200 attccgccgc caaaccacag cacattgtac aagcccgtca ttgcgccgcg gtacgccggg 1260 tgcgccattt ccgatacata tgcgggccct gctgtggcag aggttgcgac gccaaaaccg 1320 agcaggaacc ggccggccat gaatccgccg aggttgtggc atgttgcttg cacgatggtg 1380 ccggctatga tccagagggc gccgatagcc atgcccatgc ggcgacctgc tcagtcagta 1440 ctcaacaagc caggctccgg caggatgggg agggttgagg gatgaggtca cgtacctcga 1500 aaatccgtaa acgggccggc aaagaacgaa ccaacgatat tcccgattgt gtagatggca 1560

tacacgatge etgtegtega ggtteeetet teeagatega aaceaaagta etegeggtae 1620 tgtctgtagc tgtttatcga ccccatgagc gaaccgttgt agccatttat acacgagttg 1680 agcategeca egeegataca ecagtagage taataaatet aegteagace etetttatee 1740 atggatgacc agctcggctg agctagaagc gtacctttag catcctcttg gtgagaagcc 1800 gcggcttcac acggagtgta gccatgtgga gcgctgcatt gttgacactg aagacgccct 1860 tateggegte tetggagatg gtegtetega atecataegt gegtetetee atgeegaeet 1920 atcgaccgac cataccagct gggtttgaat ctgcttcccg gagtgaataa ttgcagggct 1980 gaaagcagcg gaaatcaggg aacaggaggg gtctggggtg ggaccgggag aaggcgattg 2040 accggatata tagggcagac taaaggataa aagagaactc atgattacag accagccggc 2100 agaaatcgcc acgagtctgg gaggattgca cctcgcatag gctgcaagga ttcgtctccg 2160 tatectgeee aaacaggttt cagggeeteg egtgeatgga gacegeggga gaaaegeeta 2280 gatggaaggc tetgtgeetg aacgeetete egtegetaaa egggtatgee tggegtttat 2340 atcgggctag gggagcaacc accacgcagt ggctgaattc tgtccaaatg cttactgtat 2400 ggtacgacag gatagaactg aatgagaaac tatcgtgtat agttaaaagt gcctgtggca 2460 gegeegtetg taccacagae tecagtgatg tgegagaege gggtgacaga egeagegtgg 2520 agcgagcgga cagatgtcaa tgatgcctta attcggaaaa aatcctttta ctccggccac 2580 aggacgaggc tgtctaggag actaagacct gatcttagtg caatcgtggc ttggccattg 2640 ctcggattgg atgttcctgg caggattgtt tcggccatgt gtgacagccc tgcaccagtg 2700 cctcgctcat tttactaata gatgggcgtc tcttaaggct tgttgcaatt gctccggtcc 2760 ctgacgccag ggctagtttc aaatttgggg gctgaqqcqt tqqcatgqcc qacqttctgq 2820 ccgagggtgg agccgttagg gcttattgga agacgacgca gctgagcgtg agccagtcta 2880 tggtgttgcg atcggaaatg agatctcatc tggctgaatt ggactcttag acctttagtg 2940 agaacgagat tegecetaat teaaacegga ggeeegeete gtattateee atacaactge 3000 tgtacactaa ctcatctcta accgatcatc taactccatg agggccctct ctgtccattg 3060 acaacaaaca aggtaaaaat atacettete caeteggtea ateggteaga eeeggeteat 3120 cgtgattaat attececeaa teecagegta eeceetgeaa acceaacete acateeegge 3180

aaacgacgaa ctaagccaat tagcctcgct atctgaccct cccttccaac ttgttcgaag 3240 gacacaacat gctactccca tgagcatggg tcacccatca tacggccgcc tgagggctgt 3300 acagagtegg gaaagaceat eteagagaca ggegtatgeg tegteggtte gteeeteeeg 3360 cycaggatet gycygtycac agttyccaeg etgycyaect gycetteyte ytaateytty 3420 aagatgttga teteteaaaa gtatgeteaa gggtgtgtgg tagtgaagaa ggtgaagtea 3480 cccgcatagt ggccgtccgc gagacgctcg ttcattcgcg cagaggaatt gagagtgcac 3540 ggagaggtga atggcgcgga tetecetecg ggcggaggte tggtecgatg aettttagge 3600 ttgggtgtgg aggtaatggt gggaagtagg tgtcggcaat tccgttgttg gagagatcgc 3660 gcctctcatc ggccattgct ccgtagaaag aattggggga atgcgggggt gaccagaaag 3720 atgaccagaa agatgggacc agagattgta cctggggctg ctgcttgggc attcctaggg 3780 ctgcctgggc cgtcaaagag atggtaagag tataaaattt gggaatatca ggaagacatg 3840 agcettetet ttgateagaa gggtaattgg acaaceaeat eggtgetatg eeetgttate 3900 gtgcttgagc gcgtcgcagc gtgggtggtg cgaacagttg tcctatgaaa cgataaaaaa 3960 atcaaataaa atcaaacaaa ggtcaattaa aaaagattag attaattgtt aattgagatt 4020 aatcttaaag cataagaata gtaagaaata ataatcacaa ataaaaattt gcgctgtctt 4080 atatttcctg agtttcaata ggatcacagc aagtcagcct ataaccgcag aattttacta 4140 gattgacggc cctgtgaagg atgactggtg ttgatgggaa tcgactattt ctttgggctg 4200 gccaacaaaa ggtacagata ctggtggttt tggacttttc tgtcacccag taatcaatcg 4260 tctctggaat aaacagcgtg aaccgcaaag agactgtatg cccgcaaata agtggcttac 4320 accetgeget etgeaatgea agattteagt ageaagggte tagatgttag aggegeageg 4380 ggcccagcac tcaatgttgg atactagatt gtcccggctg gagaatgaca gaattacctt 4440 gcaaattett ctagtcaagg tagacgegag teetgeettt catgtggeeg aggttttaga 4500 tgctcatgcg caccgactcg tgatgatagg ccaaagtccc cagaccgagg gctgcgtcta 4560 tatgatactt gacgatatat atctgccaaa tctcgacttc gcaaggtagt accaactcct 4620 gatgaggtgc tacggtttgt gcgccttcca tgtatctcgt ctgtatgtca ccaaagtatg 4680 ctgtggagtt actgcgctac agctgtaatc aactggcaag gaagaccctc gctgtaaaag 4740 cgcgggcaag accgtatatt agcaacgacg aaacatcaaa gcgttaagga cggcgtcaat 4800

cccaaagtca gccagttcga tgcctcgcct aagaacaccc gccgcgcctt ggacgactgc 4860 ategeceage ceaagggeeg caagaagagt tgacatattg agttggggtg etgeaateta 4920 acgtccggct cgagctcacc cttggcatga tcgacaagga ttatgtgcag gcgggtaaga 4980 tcagggtaat tgcgctgtcc gaggtgcgcg ccaattcgtc tacgaggccg tcaagtatac 5040 caageteact geegtegagg eegagettte tatgtaggtt tetettette gaaattteat 5100 tctcgtccat ttgtccgcga ttgattccag tggctcaggt ttacccccga tatcctggat 5160 aatggtgttg cagccgcttg cgcgcagtac aggatcccaa ccgtcgccta ctcgcccatc 5220 ggacgaggta cgttgacggg ccagctgaaa cactttgacc tgcctatgga ctcggtactg 5280 gtacagtttt attttccgcg ctttcagcag gtgaacttga aagaacctcg gcttttgagc 5340 aacqtcqaqq aqattqccqc qcqcaaaqqc tqcaccccc qcaqctqqcc atcaattqqa 5400 caatcacact gttgcggcgg ctgaaaacga gaactgtccc aatcaccaga ttgtcgacgc 5460 ctgagcgggc ggaggaaaac agcaagatta tggaggttta agacgaggag ctggatcaga 5520 ttaatgctgt cgtggtgagc ttcacaccag ctgtagagcg agatcccccq atcttccaga 5580 ccaacaccta gccatgcagt aatgcgcatt cattgtttcc cacagaatca cagcggtcta 5640 tactgtcacc cgcccttaga ctattcagag tttggcagcg ctcctaagag tcggcatata 5700 gcccctctgg acagttactt tggtaacctt cgtgcgaagc agtcaaaaaa aaat 5754

<210> 931 <211> 3623 <212> DNA

<213> Aspergillus nidulans

<400> 931

cacatagaac ccgctggaca ggaggaggaa gcttgggttc gacatccata tctgtctcaa 60 ggccgtgaag agagtcttga acctcggggt tgtccgaacg gaggggcttc tcaaagagct 120 tctggatagc cggaacgcgg gcagcgaccc agtcgtccgg ctttgaagca agtatgatgc 180 gaataacctg caaagcgttc actatcggcg tcacatactt ctcaatgggc ctatctccac 240 ggtcttgtgt gagaattggc tcgatgactt tctggtagag ctcaatgttc agatcaccc 300 agtaagccgg cgacatcaga ttacggagta atcccacagc tttcttttgc atctcgctcg 360 tgtgaacagg gccttgctgc tttgaggacg gaagttcgcg gaaccgggcg gccggcacct 420

ggaacctatc gctcgacgtg gtgatgaagg taataaggta ctttgtcaaa gccgcacgta 480 540 ggtcaggagg aaccatgtat tcggagcgct cacgagaccc gggaggtgca atagccggcg 600 agggggaaga agttccttga gcgtcatcaa gcttgcgttt ctttgagttc ggcgactcag tcagaccatt ctgggtaaga ccagaactgt tctttactcg cttttcttcc caggtccaaa 660 720 tcaaactgat caggttaagc gcaagcatct tgctatcgtg cgacgggctg ctcgcaggag 780 aggcaatttt gatcaaagaa gggacgataa gaggcacgaa gtgctctcgg gactcataaa acaggtcgac ttggcgcacg aggaactgga agatactcat gacctgctgc agattcgcgg 840 tctcctcggc aagaatacga cggggccact tagcccacag cgggtaccgt gagtcttggg 900 attgggcgtt gtttgctgct gcaagtatcc tggtaggtag aacaggggca agaacatcca 960 gcgcctgggt cacaagagct ttgccctcgt tttggtgagc tcgcaggagt gccacataca 1020 cctgcacaac aatcttcatg ggagtctcat aatgcgcgat gaaataactg atgaggacat 1080 aggcaccgta cttgttgatg atgtcttcta ggcgaatgta gttccaagca aacttgatga 1140 tgtccttccg cgaatcctgc acagtggcgt ggtgatactt gatcaacaac gcagacagtt 1200 gcagaagctc catacgagaa tggtcgacgc ccgcttggct ggactcctca ctcagatctg 1260 cgacctgtgg cttccataag cggttctgga taaattcggt catactctta tccatcaatt 1320 ttggaccatc aggagaactg ttccatgtca attggacatc cattgcgaag attgggttga 1380 ccagatggcg gaatgcgtag gtcttcattt tctgggaaca tgagcgctga ccataaagat 1440 caaggcatcg cataatcaca gaacgccgat agtcaataga ctcgttggtt atgatatgac 1500 gatagatgaa cttcgggaaa gcaatactcc gcttgagatc gcctgcggac aacccatcaa 1560 caacctcgaa taggaaatcg agatcctgca ttgactcgga caggtaagcg gtgacgatat 1620 ccataacctg gtcttctgct tgctcgaccc gcaaacgctc gctcgggaga agcttgtcac 1680 cacgcagctt ccgctggaga tctcgcgcag acgctaggac tttagttctc aggtccgcat 1740 gagacaccag ccagtttcgg gttgaagggt aagaggatat ggcatgcact gcgtagatac 1800 cattgatagc ggcagtattc ttgccgtctg tctgctcctg tccgaaagca gcgttcatga 1860 agccatccgt gtctgcaact actgcggagc gaagcgcgtc actttccgaa tcagcaagta 1920 cctggccaaa gaatcgtcca aaccgctcat ctctgaacct agcgtaaaag aaggcgaggg 1980 tttccttggc atatcgattg agatacttga ccatcggctt ttggaaaggg ctgctcgaag 2040

teetgegaag titateetee aagteeaata eettgiteae aagatgitee atgaaagatg 2100 tagcagccgg agggaggagg tggaaaatgt taaatattgc agctacgatc ttcataggag 2160 ggctttgctc aacaaggcta aaggaaactt tttgaaggat cgcatcatcg gcaataacct 2220 tcatgtggtc cagtaaacga gctcctatct caactttgaa gtagttggta agcaaggtca 2280 gaagcctagc caatccgtca agaccagcga cactcagccg cttcggatct tgcaggttca 2340 tgagaattgg gcgcaacccg ttctgaagca aatctttggg cagcttgtta gtttgagtta 2400 ggacgtctct caaacccgca ttggccgcgt caatcacatc aggagaccgc acataaagtg 2460 acttgaaaaa aacggagatg atgcgagcac gactcgtatt ctgaggagtg ttcgcaaatt 2520 ctgggaaget catagecata gacaaaagee gaaggeaage aacaegtaag tteacaatea 2580 teteggegtt titgaacteg tieggittae tegetagatt gicateatet geateageea 2640 aggcgagaga ttcgagcatt aggcggttga gcgggtcgtt gaaggtgaca atgtcattgc 2700 gcaggcttag gcagaaggta atggcgtcga taaacccaat ctgcgttggg aacggcaagg 2760 cgcggagggg cttgttgaag attgattgca aaaggcgatc cttcactggt aatataagtt 2820 catgaacctc gcagctcaga acttcagcaa tggtggagaa gctacgtcga gaagcctcgc 2880 gaacatgttt gttcatatge gagageteat agaegaagaa geegeatage gagtagagae 2940 ggctcttttc attcttaaga tcctctttgg tcatgttctt acagcacctt cgcaggatca 3000 agtetagggt gteetggget eteaegegtg tgetggetgg aaggtetgge ggggtateet 3060 tgatgacata tgtcaacgcc ctcacgaatt cagcttgttt ttcgtaaagc caggaatcac 3120 cgaggtccag ctcagtggca tatagatgaa taccacggct ccctcctgct ttggtgaacc 3180 attetteget atggeagetg tgacagaata etegaceaag gtgetggaaa aagggeaget 3240 tegteacaeg ttetggggat eegaatattg tgacageage atetttaaga acetgtagag 3300 caaccttggc ggcatcacgg acgtcgacat tgtctgaaga taacgattca acaacggctt 3360 cagcgagaat acgtgagtca aggtacactg agccttcgcc acaggaaaca tcaaacggct 3420 ttcgcgtatg tctagcttgc gcaagggacc gtccaacttc caccatagca aagtgcttgc 3480 atacgtcggc tacaaaggca gtagcaattt gcttgagagc gggcaatgtg gtcgcaaaqa 3540 tggaagcctt gagaagcttt ttcatagtcc cttcctgagc aagcttctta ggaatccagc 3600 gcgtccgctc tactttcaag aat 3,623

<210> 932 <211> 2738 <212> DNA <213> Aspergillus nidulans <400> 932

acceatette ggategetge egagggggae eegttgaeae attgetgtgt gtaggetgaa 60 gtggttgttt gtaaggggat teggetgget egetetgace etetteeteg tgtgegetgt 120 cagaaggggg gggaggagga ataggcatgg caccaggcgt ttcaccttcg ttcagtgaca 180 acgttcggaa aatcgcattc aaattttcgc tacctccact gtcactgcga tacccagatg 240 ctcgacgcga tggttgtcga ctaagcccac tctggttcaa attaaagtag gacggctgag 300 gcatgctgcc tgctacatct ggcgtgatca acggagtgga ccctggtgag ccacttccct 360 gaaagtcgaa cgaagcagat cgagacgaag ctattgaggt ggctcgagga aatgatcctt 420 gctttaggat gtctcctgat tgttcgttca tgctcttcag aacgcgcttt tgacgaccaa 480 ctaaccccat acgagacaga ccaaaatctg tcaacttcag atgacccttt tggtcaatga 540 gtaggttgtc aggtttgagg tcgcgatgca caatgcctcg actgtggaga tgctcaacgc 600 ctaagacaac ttcggcaata tacttttttg tccaatcctc aggcaagcca ccgaggatct 660 taacaagtga agcacagtcg cctccattga gatactccat gaccaggtaa aggtagtctt 720 tactggagaa cgtccagtaa agcttcgcaa cgaagtcact ttccccttgc cacatcatga 780 tegetegete ggetttaaça tiggigaeet ggitetigge aaceatatea geetiitiga 840 gcactttaat cgcatagtac tececagteg tettettett ggacagataa acaetgecaa 900 atgcaccett acttatggge ttgatgattt caaagtettt gatggatgga ggtgaeggge gtggttgggg ttggcttgca gtcgttaaat gaqqtgaaac aqqcqqcctq qqcaaatcag 1020 aggatgtcgt tgacgattga cggcggtgat gtcgataatg atgaagagcc aactcgccta 1080 · gattggatga gggcgatacg attggggatg ataaactctc agccccagtg gaaagacgcg 1140 gcttaggcat acgcagcggc gaatgaggtc cagacactct agctggcgaa tgttgtcgcc 1200 gtggcgagct ggacaggccc ggaagcacca ggcttctgcg cttacgctcc agactccgat 1260 ccgatgacgg ggagtcagtc cgcatagccc cagttataga agacgagaca atgctgctat 1320 cactttgatc gcctgaatcg atatcagcca aagacaaacc acgccgcgac ggctgagaag 1380

tccccagcag gttcgcgaca ctcttgtgtg agcgaggagt gggacattcc ataggactag 1440 atggaccagt tgaaacagca gcagatgaag atttcccctc agaggaatga cccgactgga 1500 agcgatccgt tgcattacgc atcgacatcg tcaaagcaga cactggcgga ggtagctcag 1560 gctcatgacc agcattttgc accaatatag acgctgagga ggcagatggg tcggaggttg 1620 teteatetga tggegtetea tetteagagg agetagaate aeteagetge eeggeagega 1680 tacgctcggc ctttctcagt gccgcagtaa tgcattcttc caccagcacg gtatactcaa 1740 tgcgaatcct ttccgcgtat tcaacaattc ggcgatgacg gataaccgca tcaacctttg 1800 atctcgcgac ttgctctgtg tccgtacaca gcgcagcaag accttgttcc tgttccaaag 1860 tattagaget tggtgaatge cattgaagea eetgagaaat aegagaetee gattgtggtg 1920 acatigiting quarticiting continuous continuo tttctagage tgtategeag agategagta teaacteaae aactegaget ageggtegte 2040 gaactgcaaa agaacgggca cgtatatgac cagacccgga gactgactgg tctctggacc 2100 taggaggagt tgcgggagcg gagctagtcg tagacgtaga tcctgaggag ggcgccgaag 2160 cgacgggcga gggtccgatg ggcagacctt tatattctgg ttgaggcaaa tgaggggagc 2220 taccategeg agaacttatt ggtctaccet geettgeete taaegegtet ageactetea 2280 cgatagcatg ccggtgctca ttgaggttct cttgggcgat ctgaacgtcc atctctgctt 2340 gatgttcttg caggcaaaga tccgagtgct tctcgaacca ccaaggagtt atttgacgct 2400 cacaaatgcg acataagaca ggttcgggtg cagggtgttt ggattgatct ggttcatttg 2460 cagccgcctc cgctagaacc gtcaggtagt ttgctagaac ttcagctcca acgcccaaag 2520 actetaceaa ggatgatgge aagtegatag taactteteg tggttttgaa tatggeegea 2580 acatccacat agtctattgc agttcatgtc agtccatgta ggctttccga ggacaagacg 2640 gagacttacg tgagcgaccc cttagactgt acggtcataa accataatac cctgcccttc 2700 gaggttcaga atagctgggc catcctcctc catctccg 2738

<210> 933 <211> 2479 <212> DNA <213> Aspergillus nidulans

<400> 933

aaaaccaata tcccccccc cccccagcat cctaatagag gcaaaccggt gctctgtcaa 60 gattatatca gcatatgcta aaaggcgctt gaacctacaa agccctaata tcagacccta tataaaagaa agctgctccc gcgagcacaa gctgccctgg taggtacttg gccaactcat 180 cgccgcctgt acaggccaca gagactttac agcataccac cagtgcttca accactcaga 240 ctacctagag agctgctctt gtggtaggac caagacccca gtatacttct tcttctaccc 300 atacaccaga aagcactgga aagatagata gagatatata agggacagcc tgttaaaaaat aatagactag ctcttaagta cagctgctgg ggctgaagaa tttagtcata ttatacaaga 420 atcatccttc ttcaaggata tatgcctgaa ctaggcccgc cggagtgctt gatagtgcaa 480 cagtccacac atctacctgg ataaagggtc cggcccctct ccctaatcta taggtagtcg aaacaggcat ctgccctcga agacctggcc agggcagcac tgggtgcttc ttctgcttat 600 ttccaatata tattatccat agttgctgct tcaaacctgt atctagctag ttcctaggca 660 gttctgttta ggtagcacgt ccagatgccc cctgggaggc cgcagatcac gtgggccccg 720 taggatgggg taatgaatag acggagaaga tatagtttat tctatttttc catcccaagg cgccttttga acagagccct acctagcggt atttgaggaa atggcatctt tgtcacgtcc 900 ttggcttgag aggccataat agtcccttcc tattatgaat ttttttgttg aattgtcacg 960 acatgttgtg aagaagtcct gaggacacta aataggtcag gtttatgcat atattgagaa 1020 tatatccagg taataaactt cactgacaat gcctaaagct gctttgagct cgtgagtcct 1080 accatacctg aacagcttga agcaatagac cgaagagtag atgacactat ccctttgagt 1140 gcgctgttgt tatctttgga accgactttc actattaaaa gattcaagct gcagtctgcg 1200 aaatgttgac agatccgctg ccagacttga gcaagacaca ggtctttaca gtcatgggtc 1260 ccgcgacaaa gcagggaaaa agtaccaaca taggacaaaa actgaccggc tgggtttctg 1320 gaatgtataa ggagggttac ccaaggcttc gactaattta tgtacatcca accaatgtta 1380 taaactccga aagaacagta acggctatat tggcggctag tcaagatggg ggttgaattg 1440 gatttgtact gcatgctgag ttgtcatgag taggctactg caagggctgt cagtctgtga 1500 tgatcagacc ctagatccac ctacggcagg gatcatgaga gatgcactgt ctcacatacg 1560 caggaattgc ccttcaagaa gagactgcgg caggaggatg tacaggagag gtgtaaaaga 1620

acttttggga aatgaggact tcgaaagtat gagattcgcg ctaccgtcca agcttagact 1680 gtcgattatt acttttctgg tgccggatca tgcctatagg ccggcgggag aataccttgg 1740 agggctgctt taatctgaag agcaagtatg cgtgagtacc accagtgctg ctgtgtataa 1800 cctcccatga tccagatgct ctcaacgtgc gaatgccgct tccacatgcc acqtatttca 1860 ccctcctcat ccacacccca ggtcgtgtcc aagtgcgagg caatgcctcc tggagtcaaa 1920 acatgtgccc ttccagtctg atcatcaatc ttcgtgttag ccacagtcac gtctgacttg 1980 ccacccagaa tttcagtggc agtcgtcacc acattcgaat cagcaaaqcc aqtacaccat 2040 atgatcgcat ccgtgtcgag acaagtgctc tcccgaaaac tgaagtccag tttccgtata 2100 gctgacaggc tccgcaccag ccttgatact gaccttccct tcctcaatca gctttgttcc 2160 gtcaacatct atgtaatgac cgcccgcacg ctcgagcagg ttatggatca aggcacacgt 2220 tggttctcga ctgttgagaa caggggcccg gctgccttga ctgcggcgta tcgttccagt 2280 tcagccgatg cgagcgcgga aaacaatcca cgacacaact gtccgtccac aaatgttqqc 2340 agtgagagga agagattate ggetgeateg acteegtate ataagtgeee aggetggeet 2400 ggtgatagac gtattcaaga ggcacgatat atgtgggcga tcgtgcaacc attgttgcgt 2460 taaggccagc gctgtggcc 2479

<210> 934 <211> 1743 <212> DNA

<213> Aspergillus nidulans

<400> 934

aaggcccaga agaaagactc tcccaataaa atccccacaa ccactccaac gacctccccg 60
tggcgccgcg cagaaccgtc aaactcggca actcgcgatg cgtcgcctca tgtcgcaatt 120
ccacaaaatga cgcgggcagg ccaagctcta gagcgcgcga gaacatgctt cgccgcgccc 180
cgagtatgct gtccactaag ccggtcacga atctgcgaac cgctttagca cttaccactg 240
actgccaggg aggaggcact taccgacaaa acgccgctgc gtacgtcgcc cgaatcgcaa 300
agagcgagtt cttggacgca tcgtcgtgca gaattgcgtc tgtaaggagg gctgttgctt 360
caacaggatg tgggaggttg ccgcggagtt tccacgcgga tacctggaag taataagctt 420
acgttcactc actcgaagac tgatttccat ctctcggtcc caataaattg aagcataggg 480

gaaagaagtc agtgaacata ctgttgcgca tgcctgcgag cgcagatccg gcccatcata 540 ttccggggga gggtagaact gttttcgcac ggcgaggagg tccgagtgcc tcttccatgg 600 ggtgaaaatc acttttgcca tcttaattat tatacgttcc cttgagtata tggttcaaac 660 tectgateta taagggeget tgetggattt tttatatgtg eggatgattg ttetteegte 720 ccgagcattc gtcgctagcg cgtttcaggt attgacttgc tgaggtttct tagtttatgt 780 aattcgtctc gttgttgcgt caatcctacg gagtggctgg attgattgtt attgatgttc 840 atttctcgtt ctttagactc ctatgagtac atatcatgat gacgcctcgc tcagtgtcct taacccatat gctatgctat gcaaacgcta tcccgaaaaa actccgtgcc atgcgatcaa aagaaatcaa atccatccgt atccgtaatt catgcatgat gtggtgggaa aattgaagga 1020 tggtcgggcc atggtaggct gctcagaacc attgtcggat tcgaagaaaa atgtcttgtt 1080 gaccatgett teagettget tatttgettg egeegaetge tgttgattat eagatteaga 1140 atctggctct tgctggtctt cctcttcttc ctcttcgtca tccttttcag cagacggtgt 1200 gaacgtctct tccaacttca gccccttgcc attcataccg tacaccaatc cgtcggtaga 1260 tgtatcgggt tcgctgtaga ggcccattcc aaccagttca tcccccggct ccggcttctc 1320 cagcacggga actgattetg catcategee gaacttetgg ateggeagga agtegggegt 1380 ggccggcccg ggcgatgaca cacttccata gttagaggct ggagccccca ttgatgggag 1440 atcctggttg atagatgtca tgtccagagg ccagtcattc aaaggctgcg caaacgaggg 1500 tacgcccatt tcagatccgt cccaaaacgt cccgtcaact tgaggttggt tcatatgcaa 1560 gtaaggetee tgeggeagtt gagggaaage aaggteetgt tgeatgttgg agacategge 1620 agcgggaaaa ggttgcaaca tagtctcatc aaaggcgccc gtcatggttt gagacggttg 1680 ggtcacctgc gtgaccggga gattgtacga gtcaaactgg tcgttggata gaactgcgct 1740 1743 ggt

<210> 935 3491 <211> <212> <213> Aspergillus nidulans

<400> 935

ggcctaataa gcctacgggg tgttatcggg cattcccctt tttctgtgac ttccaaaggg

aatgggcaga cacatgtcca attcaacacc aagggataca tgaacatgga gcactgaagg 120 cccaaagttg atgccccatc cgattccgaa caagatgtgt tcggctctca ggaagatgag 180 agcacctggt gggaagagac ctttgggtgg aaactcagat tcgaagccca ggggtccgaa 240 aagtgtgggg tggacattag cttcccaggc tacactcatg tgttcggtat ccccgagcat 300 gcagactete tgteeetgag ggagaegegg taagetgete ggettetatt teataageta cccaaactaa tcataagtag tggaggcccg ggtaaccacg aagaacccta tcgcctgtat aactctgatg tgttcgaata cgagcttaac agtcctatga ctctatacgg tgcaattccg 480 ttaatgcaag cccaccgtaa ggactccact gttggtgtct tctggctcaa cgctgccgaa acctggattg acattgtgaa atcaaaaacc gacacgcaca gccattggtt ttccgaagct 600 ggacageteg acgtatttgt etttetaggg cetacecetg gegagataag caagaagtat 660 ggcgagttga ctggttacac tcaactaccc cagcagtttg ctattgctta tcaccaatgc 720 cgctggaact atgtcactga tgaagatgtg aaggaagtcg accgcaattt tgacaagtac 780 caaatcccct atgatatcat ttggctcgat atcgagtatc tcgacgaccg aaagtacttc 840 acttgggatc ctctaacctt ccctgatccc atcagtatgg agaaacagct tgacgagtcg gagegeaage ttgtagtgat cattgateea catateaaga ageaagaeaa gttegaaata tccaaagagc tgaacagcaa aggtttagct accctgaaca aggacggtaa tgtctacgaa 1020 ggatggtgct ggccaggggc ttccaactgg atcgattgct tcaaccctgc agctatcaaa 1080 tggtgggtcg gcctcttcaa gtatgatagg ttcaagggaa cccttcctaa tgtgttcatc 1140 tggaacgata tgaacgagcc ctctgtgttc aatggtccag aaaccacgat gccgaaggac 1200 aacttgcacc acggtaattg ggagcaccgt gatgttcaca atgtcaatgg tataaccttt 1260 gtcaacgcca cataccaggc tatgctggag cgcaagaaag gcgaaatccg acggcctttc 1320 atettgacce gategtteta egegggegee eagegeatgt eegetatgtg gaceggagat 1380 aaccaagcca cctgggagca cttagcaatc tccctaccga tggttctcaa taatggaatc 1440 tacggattcc cgttcgctgg ggccgacgtt gggggattct ttcacaaccc aagcaaggag 1500 cttctgactc ggtggtatca gaccggcatc tggtatccgt ttttccgcgc tcatgcccac 1560 attgacactc gccgtcgtga gccgtacctg atccaggagc cattccggtc gatcattacg 1620 caggetatee ggetgegeta ecagettett ecegeetggt acaetgettt ecatgaaget 1680

tcggttaacg gaacaccgat cgtgagaccg caattttacg ttcatccaac agatgaggcg 1740 ggtttcacca ttgacgacca aatctacctc ggctccaccg gtattctcgc aaagccagtg 1800 gtcactgagg gcgccacgag tgtggacata tacatcgcgg acgacgagaa gtactacgac 1860 tacttcgatt acactgtgta ccagggagct ggaaagagac attcagttcc ggcgcctatg 1920 gaaaaggtac ctgtgctaat gcaaggaggt catattattc cacgcaaaga ccgaccacgt 1980 cgtagcagcg gactcatgaa gtacgatcct tatacgctcg tggtggttct cgacaagaac 2040 ggacaggcgg aaggcacatt gtacgttgac gatggtgaga cctttgacta ccagcgtggg 2100 ggacacattc accgccgctt ccacttccaa gactcctcac tcgtttcgga ggatatcgca 2160 actcacgggc ctcagacggc tgcgtacctc aagaccatgg ccagcgtcag tgttgagagg 2220 attgtggtga ttgaccctcc caaggaattg caggatagga gcacggtcac tgtgattgaa 2280 gatggagcaa agacatcctc ttcagcacaa ctggagtatc atgctcagga aggcggcaaa 2340 gctccgtatg cggtagtgaa gaaccccaga gtgggtatta gcaagacctg gcggatcgaa 2400 ttttaagctc cagcacttgg ctcagcactt ggctagatag agcactagat ggaaatatgc 2460 attttacata caaccttgca ggctatcaca atatttgatc ccttttttta aggctgcgag 2520 actagttggc gatcgatgca ctaatcgggc aaagcttgag cttgttttgt tgaggccccg 2580 taggaagctg actcagctat atataaaaaa agaaagcaac tgaaatccgc ttgcgggaga 2640 tctcagtaag ctcaagaaaa cttgagactc gagttgacta ctctatgatt gttgttttag 2700 accttcgtat cttacgttaa atgtgctttt ttcctcgtgc tctgccccgc gatccgtcct 2760 ccgcgtctgc aacttccaat ccttggcctc ctgaacccca tatttcgaaa ttccatcaac 2820 gactacgcta tgtatattgt ctcacagctc cttgaatatg gagctccaat cttgtacgtt 2880 cattcctctg gaaagtttca ttcaaactat gcggaaaaag aggctagatg ttgacacttg 2940 cgcgcaaata gcatcgttac gtcgcccgtg acttcctatg cggaccagat cctgagcata 3000 caccgaaatc gaagtccgct ggcttctcgc ttgacattcc actgattatg ctggtggcat 3060 cgattttgaa gtgcgactcg ttcgccgcaa tactgagcaa tgctgacagt cagccacaga 3120 gtetttttet ggtteggega etattaetet etegetetee tggegeagge catettgaeq 3180 attggagtcc aagccatact gctaaaagtt gccctggaca atcgaccggc gcccgggcaa 3240 agaagcggaa tcgagcatat tccgttcacc ggcgcggatg ataaggggtt cgcgaggccg 3300

tacgagttet ggcagtggaa gaacccgcgg ccgtatgtte tactcattge tttatagete 3360 ggcttaatga gactaacgge ttgetttgat tgcagatatt ggttgtteet ggcetattte 3420 accggtgtee ttteetteat ecacatette etgacgecca tetegagete ececaettae 3480 atcagettee t

<210> 936 <211> 2835 <212> DNA

<213> Aspergillus nidulans

<400> 936

gagcttgggg ggcatcgact gcagttggag ggcaactact tccagcctac gatcatctct 60 gggatgtcgg cctatatgtt gacaacccag gaggaaatat tcgggcccct ccttggtctg 120 taccggtttg aaactgaaga ggaggctgtc cgcatggcaa acgatacgag catggggctt 180 gcctcgtact ttttcaccag ggatgttagt cggacgtggc gactgctaga gaatctggaa 240 300 gcgggcatga tcggaatgaa cactggtaag tgatacacaa attcatgtct attatctctt gaacgcgcaa cttatgagat tccaggcaat tcgtcagcgg cggagtcacc gtttggtggc 360 atcaaagcgt caggatacgg caaagaagcc ggcaaagatg tggctattga agagtatctc 420 attgccaaaa caggaacatt gacagttgga gctgtctcca agctctagat aggcagagat 480 aagtagatag tgaacatagt tgaaatccca ataagaacac aatctatgac aaactcctgg 540 agcatctgat accaacaggt agtggtgaag ccctgatcac attctgggct atacgcagac 600 tatgtggcat gtcaagcact ccaactcagt caatgtttca ttgatccagt taaaatattt 660 ctgctattcc cttttgagct cgcgggtgcc ttcccagtct tgcgagcgcc gatcactgct 720 totgactoto attotocaca gogacttaat gotoctatoa aaagtttoto tttaccoaac 780 agatagggag gcagacatcc cgatatcgat cgagtattgc attggacatc tgctaataat gtacacaata acgaaaggtt atgctactga atccgaaata gccgatcacg ctcatcaaac 900 aggcagaatt cgtaccccca tggctgccaa agcctctctc cagtccattg actcatctgg 960 atctgcatct agactgctcc agaccctatg gactgtagca tgctgcttac tatagtttcc 1020 catecegtae accaggaete ggetecaeca accateceae tgtegaeget gttegeegae 1080 agceteacag gaegeeacga aegetggeea egagattgge gegggeageg egeegttett 1140

eccaaatgtg atettgagat ettetgeete atteaagget geaaggaeet ettgetgete 1200 ccgatggaga cggcttcgtg cacattgctg gatcgaccgg tagtagtaga ttcgcgctgc 1260 tccttggaac gctttagcct gtgcccgcgc aatgtctatc atgtatggtt ctgcttcggt 1320 cgaatccatt teegeaaagg attetgaatt tatagtgtae gageaeaget egteteeeag 1380 cgtctcgcac gattgcagaa gactgtccgg atatggacga ccctgctcac gggtatacgc 1440 aagatactgg gcaggcggta gatgcggaag attgccccag ctatcgatgt tgtaatgcca 1500 tatataaatt ctatactggg ctctagggtg tcgaagtcgg ctccccgggg aacatggtcg 1560 taccetggee aggeeeteeg tteaggatgt aegegtgteg taegeeeaaa aagatgaage 1620 attttacaga tattgttgag cagactcgtc tcacggctga caagcaggga gtagtgcctc 1680 gacgetagea gtttgattee tgeeteeagg tgaateeagt ggtegteeat geegeegtee 1740 attatctaac ccgcagtcag tagagacgcc accaccaagt gaatacagac tcacatccgc 1800 cgatactaga gacagtatag ctgtcattag gtctctgtag ggggtcgatt ttgttgcgag 1860 tgcactttgt aaggcgatca gcgaccgctg cttgtgatga caagccagtt gctcaagggc 1920 ttettgetet eettgeatte tetgeagatt ggeegeegea gtggatagaa gaetatggaa 1980 cgcagcgata ctggcagatt ggagctgact gcgacgtccg gaccgttcta gttgcgacga 2040 gccgtggagc gcaaggggta ggtatactgt cttgaaagga tttcgggggt gggacactgg 2100 ctgcatcaaa tggacaacat gctgcatata atggtccatc aacattgtcg ccgtcgtatt 2160 ttcaatcata gttgatgcta ggtcgcaatc aagagatatc actccccggt ttccagctac 2220 agggccctga ggggaacgat cattgccttc caacctgggt agatcggagc tggaaacaac 2280 gcggccaggg gttgatagta taccatgagt atccgaaggg ggaggtgagg aagagacgaa 2340 gggctgatgg gaacgaaatt cgcggctatc agcgacaaga ctccggttgg caaattgaag 2400 cgcgcctgag aaacgggagg tcagagtctg ctctaacggt attatccagg ttccgtccca 2460 ggagtcaata tcatccacgg gtattgaggt ttccgtcgat cgatacggca aacctgatgt 2520 tecateggge aggggatgag ttggcaacte ttetacegaa etggaagaae tetgggetge 2580 tgcctgctga cagtctgtat tactatctgc agtagaccca tcggtgctgt gcggaggagt 2640 actatgagca tggctcatgg agtcggtaaa aatgtcctcg acgtattcgt cggctgggag 2700 caggetetgg ettteeteeg gtgtgteega acagategea gaagggggtt gagatgtaaa 2760

gaccgaaaaa	ggaacaatac	tgttggtcgt	ggatttctcg	atggtttcta	gggctggtgc	2820
cacttggatc	agtca					2835
<210> <211> <212> <213>	937 2175 DNA Aspergillus	s nidulans	·			
<400>	937					
cccacaaaga	tcgcttggac	ggacggattt	ctgtttagat	aatcttcaaa	cccggacttg	60
agcgtcgtgt	tcgcattctt	tgtatatcgc	gccaaatcaa	ggtggtaaát	ctgctttgac	120
cagttcacga	actcttccat	ttcggtgaat	ggatctgctt	cagcaacgta	catagcgggg	180
atcaagggcc	ttttggcctc	gtcgatcggg	agttttgtgt	gcagtgctgc	gagaaagagg	240
attaggagca	cgagacagtc	tttcccacca	ttataggaga	gcgcaatctc	gtcgagagcg	300
tattgcgtta	gggcgtcgga	gattatttgt	agtgagatgc	gggtttgatg	ctgcacgcgc	360
gcgaggaggg	aattaggttc	gtgactctcg	ctgagaaata	ggctgatgag	ggtgtggcag	420
gcggttatga	cggatgtgag	ggaggacgcg	tgctgcgaag	gtattgatcg	tgggatgtgg	480
gaagtaggta	gtggtcgatg	cggttggggt	tggggttgtg	gttgagggtc	tacggtggac	540
attgttcgga	ctgttgtagt	aggctctgtg	gaggtggaat	gaaaactgta	gtttttgaaa	600
gggctagtga	cgaatttcag	gagaccgcca	gccgaaagta	tatatatcga	tgtcaattga	660
gcggacctca	ggaataataa	tatttatgaa	gagtgtggga	gggatgatcg	ggctcggagt	720
tggagagagg	actagggaat	tggaatgttc	tggtacgccc	cgcggccccc	gcagtccgag	780
cttgcctgct	tatcagttgt	tacttcgcag	tctatgttat	ttactccgtt	tactgacatt	840
catactccat	gaatttcgca	ttggtttgtc	tccagacagt	atttaaagct	attctagatt	900
gaacaagcag	aggtagtggg	ggaaggtcgc	tttcctcata	ccttttgttc	tgcgaacagc	960
gcagatctcc	ctccaccgaa	ggaccgaggc	tcaaaagact	aacagttcaa	agacctttca	1020
gcttgtgaga	tgaggccgag	agtcggataa	tggcttatgg	cttgacttga	aagaagcgcc	1080
gaatctgagg	tctggcactg	tctacctgcc	acattcagtg	cgagataaca	gaataagatg	1140
gtcgctggtc	agatgcaggt	tgagatgcaa	aatattagaa	caccgcttcg	taaccgggac	1200
gatcttcaag	tactaccgag	ctgtggtagg	agtgatgctg	ttttgatatt	gaggaaggtg	1260

ccctacagga gtcaccgcgc ctgggaggga tgcagagccc ccagtctcca tgcgtaacgt 1320 acatcaccct aataccttca tctttttctt cttcttctca ccatctttct tttqcccctt 1380 ctgccaatcg cgccagctcc caatacgctg ttcgcgagta tcctcccagg cctgctgctg 1440 ttcccgtttc cgttttcgct cctcaatttc ctgctcttcc tttcgcctct ctcgtccctc 1500 ttcttgtagc ttcgccttgg cctgtcttcg tctccgcgct tcctcctcca gcaacacctg 1560 aacagtettt tgeegeeact eettettgaa ttettetgte tttaatteeg gtgagteeag 1620 tgtatatttg tgctcgcgaa taaggagtcg ccgcgcatcc gcgatgcatt cgtctaggta 1680 gttgcgttgt ttctcgtcca tgagcgccga ttgcgctttc tttaggcgat cgaaggcatc 1740 tggggcgccg gggtttttcg tcttatccgg gtggatgagt agtgatttct ttcggtattg 1800 gagtttaata teettttetg ttacteeggg ttgtagateg aggaeggegt agetggtgte 1860 gtatgccatt agtttcctgg tatgctagat aagccaatgg gaggccttac gcatccagaa 1920 caaatgettt tegaatgegg teaattteag cateetgega gegteggegg teagegaagt 1980 taaaacaatg tgagatatga tactgacctt ggtgaaatcg gaggcctctc gctccagggc 2040 ctctagcgca tcttgttcgt cggacattgc gaacgtgatt aatgctcaga aacaggtttt 2100 gtggaagatt tcgatgtagt gtggcgctag aggataaatt atatagcaaa gacaaaatgt 2160 ttcgttagct cgtca 2175

<210> 938 <211> 5201 <212> DNA

<213> Aspergillus nidulans

<223> unsure at all n locations

<400> 938

gaccageegg ttattgaaac gacaccagag caaataacaa cacaccageg caccagcaac 60 cettgtttga atgttttaag aaactatgge gggaaccatt ctaccegete gteteeeggt 120 ceecactetg tgatecagte tatteteece ttaccggeat teeegggee ttatacaact 180 gateaataac etecatetgt accacaettt eeteatteee aacceaaace ggeggattge 240 ceecacggae etteteeag aacgetteea attgeeaceg atacgtgete eggeegetet 300 teeeteett eeeaccaaca eteaetteat gggaaccea gaegggaeet eeegcatact 360 geegataegt actaaetete eeegteagtt teteettgae aetgatatag tggtaaagat 420

gcggcatcat tgcgttgtag aagtagataa ttgccttctc cgtctcaacc tcgatgctcg 480 ggtattccca gaaccgtggg atgataccta gcgtccagga ccgcgccatg tccgtataga tctggctctg gacgtcgccg ccgccgacat tggacgaggc ttcgaaggtg agatatgcgt 600 acatggcctc gtcgacgcgg ggatcatggt tgtatggctt catagctacg ctgtggatat 660 gctttgggtg agatgtttcc agtgcgtacc gcgtaaatga cagcgcatag gtcatgtcca ttgctgatcc accagctaga tcatattgcc atcggatatc gccttctggc acacctggtg $_{\cdot}\,780$ atgeagteat gagegeettg gtgegeagaa eeegteeata eteteetgat tegaggagag cgcggaatcg gtgtgcggca gggtggaatt gccaatggaa ctaagcaatc taatcagtcg 900 ttattctatc aaaaagcgaa cggggaagga tatcatagta ccgcctcctc aacaactacc 960 cccttctcct ttgccagttc gacaactttc ctcgcctcct cgccattact cataaacggc 1020 ttetcacaga ggacatgett geetgegttg attgettteg tggtecaete gaagtgetge 1080 ccgtttggcg tagagatgta aaccacgtcg atctcgggat cgtccaaaag agcttggtac 1140 gacccataag cctgcttaaa gtggtatttc ttcgcctggg actgtgaagt gctttggttg 1200 cgagaggcga tgccgtacag tgttatgtgc gggtgcgttt cgacggggtg aattactagc 1260 atttgttagt tcatcacagc agagtgaaag cggagggagg gacgattact ggctgccgca 1320 ttgatctgag cagacgacaa gacgcctagt ttgagggcgt cggcggactt cctgggctgg 1380 gagtagagga aggagttgag atactggtgg gcaaaggttg cggtttggag gacgagggcc 1440 attititict ciccicggit gggattitci ccaatcigig tatacgagia cggitgcigt 1500 acctaagtac gacgaaatct gtccctagca gaaatcaatc tgtttttcga gctggacgtt 1560 aacgttggtg ctaacgtgat gccattcaaa aacatacgac ttaaatatac ggcacaaacg 1620 ttggtacggt cgcccagaca tgttcaacac tgagggaccg cgagtctagt ttgacgtcaa 1680 gettggtaag teeegettae tateeetgeg eteageeaaa egtgatgatg tggtaatggt 1740 gggtacaaga taagteetee eteegggaca eecaageete tetaettggg tgetgtggat 1800 cgattactgg gtcaagacta actacgcatg ctccagattc cgagcagagc cccgggggtt 1860 tatgcaaatg tgtacaattg cttattctat tactggaccc tcaatagttt cgtatcatac 1920 aaagagcacg tgctcagttt tgcggcctct gcggcgaaac cgtccccttg aatttggccg 1980 actitigation general general actional transfer of the second section of the second section and the second section and the second section action and the second section action action action and the second section action a

tatcettgtt geteagaeet teetgetteg aegaeatget gtteeeteea geaggageet 2100 tteggetege tggetggtee tteteagagg gggttgggtg ggtateteeg egaeeegega 2160 agagataata cgcggcaggg atgccgaggg cggcggtaat gatcatccta gatagtgtaa 2220 atgcaagagt tggtatgatg cgggcagtgc tggtacatac catgtcgagt tgttgccgcc 2280ctgttgcggc gcaggctctg aggcgtatgt acggcgggtg acttgggggc gtgtggtctt 2340 gatagcccgc gagaggcgga ggggggtgcg tgtaaaggac attgtgcgat gagtgattca 2400 aaaatggtca aggagtatta ggcgttaatt gaagtgaaga gtttgtatat aaagctcaat 2460 tgatgttcag aatttttctt tagtcttgtc aagagaaaaa ataagtgttg agagacgggg 2520 aacagtatat agetetaget atggeatgae caggaatgat gteatagttg gageggteat 2580 gatgtatgcg cagagtatcg agttctccac acattcaata ttacgaggat tagtaacaga 2640 tgcagaatat gctcgtgaaa cattattcag taattcaata tcccaataag tacaattcat 2700 ttattcctgc ggcatctcgc ccaatttctc ttgcgcctgc tttttcccct gcttcgagat 2760 ggagtcgtta tgcatcgccc tgcacaatca gtcagacacc gcgaatagaa atagtataga 2820 ttaaagcaat gaaacatacg ctttgtagcc cccggctacg cggtttgggg acttgttgcg 2880 agegeeetgg getgteaaaa tgtetteatg aggetggteg eegeeaaget egttgtetag 2940 gaccgattga gcgtgctcct tggcttcgtt agagacgcgg ggattattta gggtgctgat 3000 cgtgctcggt cagcatggtc tgattatttt gacagagcta ggagcaagct tacgccttgt 3060 agceteteat etggttgate egetegtegg ceattttgta atgtaetaaa aagtggtget 3120 aaatatagag atggtttggt atttggtact gtataaattg agtgtatggc gttgcatata 3180 ttatctattt ttccattaag gacggcggtt atatacaatt gaccttgccg gttactgtac 3240 gcttgaggct tctacgtcgt catgcagtca gtttcacgtc agttccatac ttttattgtg 3300 gactgcaaac acctcgaact cccagcgctg teectagtgc ggcgtactgt caagggttta 3360 gagtggcacc acgcaatgct gcgtgacgtc atccccgcat catctccgca ccgagaacat 3420 cgctcacgtt gacaggtcag gacaagaata ttctaggttg acaggataac gggcatgata 3480 acagatacga taatggtgaa gaataatctg agtccctgac atcaatcagt ctgctttcca 3540 cgtaacatta ttatatgacc tggcaacaac cggcgtaagg agatcttcca gaaccagcca 3600 acctgacaaa gtgacactca taacctctga agacgacagt tcaaatcaca aattcaaatc 3660

atagcttaaa tcccgtagtc tgatcgtcct ctctctcacc tgaccgatta tctccaagct 3720 ataccgtctc atacccacac ttccaaaaac cgaagctgaa gatggctgac aagaagcgcc 3780 agcatgctta ttatctctaa ccggctcccc ctctcacttc aaaaggtgga cggcaagtac 3840 gagtcaacgc tctccagtgg cggcctcgtc accgcactct caggcgttag caagtctacc 3900 aacgtgcact ggttcgactg gccgggctcg aacatcgagg atcccgagga gcgcaagacc 3960 gccaacgagg cattggccga gaacaacgcg gttgggatct ttttagatga agcgctggca 4020 cacagecatt ataatgtgtt ttcaagtgtg ttttctccct cacactcctc cagttctggg 4080 gaaatgagca gaaatgttaa cctgtctaga cgggatcgcc tggccgatcc tccactacca 4140 atccggtgtc gacttcaacg aggacgcatg gaaatcatac aagaaagtca acgaaatctt 4200 egeogaetet gtegeogagt eggegteega tggegatttg atetggatae atgattatea 4260 cctccttttg cttccagcgt acttgcgcga ccggctcgag aagcagggca aaaagtgccc 4320 catcggattc acgctgcaca cgccgttccc agcagaggac ttctggcgcg cgctgccagt 4380 gcagaaggag ttgctagctg gtgtgctagc ctgcgacctc atcggcttcc acacggacga 4440 gtataagcgg aattttatcg agtgctgttc gcgcgggttg gacgtcagcg tcaaggatga 4500 cagtattgtt taccagggcc acacagcgcg tacgggcacg ttcgtcgtcg gcgtcgaccc 4560 ggccaagttc acggatgggc tgcagactac cgaggtgaag aaccgcatca aggaacttga 4620 ggatgagtac aagcataaga ccgtgatcct gggcgtggat cgactcgatt acacgaaagg 4680 ccttgtgcag aagctgcagg gatacgacta cttcctacgg cagcacccag agctcaagaa 4740 caaggtgagg ctcatccagg tggccattcc gagccgcgag gatgtaaaag aataccagga 4800 gttggagagg gagctgagta tgcttgtggg caagattaat ggagaacact gtacgtaccg 4860 aacctttcct ttccctcaga ccgtccttcg ctgcttgccg gagatggtgt actgacagtg 4920 atagcgacgc ccgacggcac cccaattatc tacctgcacc actccgtccc cttcactgac 4980 ctgacggcac tetacegeat egeggacate tgeeteatea cetetegacg egacgggatg 5040 aacctggtcg cagcggaata cgttgcctgc cagaaagacc ggtttggcgt cctcgtgctg 5100 tcggaacttg caggcgcggc ctccttcatg agcaagggaa gcatcacctt caacncgtct 5160 agtgcgcagc agcttgcaga cgcggttaca aggagcgaca t 5201

<210>	· 939	
<211>	1441	
<212>	DNA	
<213>	Aspergillus	nidulans

939

<400>

ccagtcggct ctccagacgc gggcacattc tggcgagtcg tcgccgagca taaggtgaat 60 gteetgttea eegegeeeae ggegetegeg ceatetgeat agaagaetea geagetaate 120 acttgagaga gtcgctgggg acaataacct ccggcacttg cgagccctct tcctcgcagg 180 agaacgcagc gagcccagca ttgtgcgcgc gtaccaagac cttctaacca agcatgccgc 240 teggggggee etagtegtag acaattggtg gtegteegag tetgggtete caateteggg 300 attggcgtta cggagcgccg tgggacgagt accgccacga tcagacgagt acgatgttgc gcctctggcg atccgaccag ggtcggctgg tttaccgatg ccgggcttcg atgtgcgggt 420 tgtagatgac gagggcaatg aagtcgcgca gggaacgatg gggaacatcg tcatggcgac 480 gccgctggcg cccacggcgt tcacgcgcct cttcaacgac gacgagagat tctataaggg 540 ctacctcaaa cggtttggcg gacgttggtt agataccggg gatgcaggca tgatcgatca agatgggtac atccatgtaa tgtcgcggtc tgacgatatc atcaatgtcg cggcgcatag 660 attcagcaca ggtattcacc ccagcttcaa ccgacttcaa tataccacag ggactaacag 720 gtcaaggctc gatcgaacaa gcaatcctct cgcacccggc aatcggcgaa gccagcgttg 780 tcggcatccc tgacgcactc aaaggccatc tccctttcgc attcataacg ttaaagcaaa gtgggggtaa cagccctgcg cgcccgagtg ctgaactctt caactcagtc aaccgtcttg 900 tgcgcgagca gatcggcgcc attgcgtcgc tgggcgggat gatccagggt cagggaatga ttccgaagac gaggagcggg aaaacgctca ggcgggtgtt gcgggagctg gtggagaatg 1020 gagcgcgagg ggagttcgag aaagaggttg cggtgccgcc gacggtggag gatcgggggg 1080 ttgtggaggt tgcgagagag aaggttaggg agtattttga atcccagagt ggaagcccca 1140 aggegaaget etaaatgtet agaetaetat atacaagett caaaetegta gaeegatega 1200 ctgttatcta gaagaaatga cttttccttt acttcagtgg tggtagtagc gtcagacatt 1260 aatgtaccca gatagcttat acacaatgaa acaaacagcc aagtcaagag aggtcatgaa 1320 gtacaagaaa taggtatgta agtataagca attcgaagat aaagaagtaa ggtatctgtc 1380 gtattcatcg accaaacgaa tcaatcgggc aaactcaaaa cactcgccaa atcaaccgca 1440

a 1441

<210>	940	
<211>	7585	
<212>	DNA	
<213>	Aspergillus nidulan	15
-400-	040	

cagttagcgg aggattcagt ttgggtcatg atcgaagcag tcttaccatc tcgagccact gcttcatggg agcagcacgc ttgaggtact tagcggtggt gtcgatgttg tagtcgacag 120 gctcctcaga cagatcaatc atgtgggaag agaagagggg ctcgccgtgc tgcttgaagt 180 aagcctcgtc ggcgtcgagg agaccatcga gccaggggag gagcttcttg gcgcagtggt cggtgtggag aacgacgggg atgccgtagc tgggggcaat gctgcggatg tagtgagcag eggegatace aceggeaatg gaageggeet ggeeategtt getaaegeee taegegagtt 360 agatcggact cggttcccag aagtttttaa aacatacctt gccggcgaag aaagcagcac 420 caccctggga aacctggagg ataacggggc agttctggtc gcgagcagcc tcgagacagg 480 caacgacggt ggaagaggag gtgacgttct gtactgtggt cagaatcaag atatctaagc 540 aattgggcga tcaagaacac gtacaatggc ggggatagcg aagttgtgct cctgagcgta 600 ctcgaagaga cggagaacgt catcaccgac gatgacaccg gtcttgcggg acagcttctc gaggacaccc attgtgaatt agaaggtagt gggaagtgat taggaagtgg tttgaatgta gttgtgagag atggaagaaa agaggaagaa gaaaggaggc tggaaaggag ttagaaataa 780 gaaagtctga gctccaggcc tttaccgaac gacgaatacg gcggttaagt aaggaatgag gggcaaagaa ctcaccgggc agtggggaaa tgatgtatga gtgatgttac gactaatact ggcacgatgt gaaaggaaca gaatcaaagt ccagagggga tggaggcctt attaatatgt 960 gccattgacc cgactcccct cctgttttcg tctctgcccg ctccgttctc gacggttctc 1020 gtgcttgttc ttccaagttg gctgccgatc cagctgttgc tctggtgggg tttgctgggc 1080 gactatgacg ctttccgttg cctcaggcca gagctcccga aactccccgc catcacatga 1140 catcatgcac ccgccgtgtc aacgacagtc caaactacaa acacttcgca ctgaaggcag 1200 actatgatct tetetgttag aaacgeatca ggagetteec gagttetaeg ttggtggatg 1260 tctcgctatc agttctgggt cgttgccgag caagacatgg tacgaagagc tcggctgagc 1320

tctaaaacgt taacccattc cgtttttctt tcgtgcttcg tcggaaaaat agcggggtca 1380 tettteegee atteatgegt tteggageae agetggtget aaacaegttg cagatategg 1440 agttggctga gattattcac agcccctggg aaggcaggaa tcccaggtcg atatcagagc 1500· gttcgatggc ggcttttaat tgatatagct ccgataaccg gctgtccgtt tgtcgtagat 1560 cggagagaac gccttgttcc acggcccagt gtccgctcag tttgagcatc ggtcatgtgt 1620 tcattatagt gggtaggaaa aatgggctgg atcgatgagc taacctcaaa cgaagtccac 1680 tactgaggtt atgtctcctg catgactact ctgacctcgg tctatgtcaa cggagttgac 1740 tcagtcaaat ctgcaggaga ggatccccgc ccaatctggg gtaccagatc aagcatttgc 1800 actgccgtca aggcaacata tcatggcaat cacctagggt cagcagcagg gaactgagat 1860 cccagccgcc gtcttaaccg gctctccgtc cgaactctgc tataagagcc atacaatggt 1920 gacacatagg tgttcggcgt ccttccggca tcctataaac cttccttgga tcctatcaaa 1980 ttgggtcttc tacctgatcg attgatatct tctgctacgc aaagtatata caccattgct 2040 cctcttatcc attgaaatac agagcatgcc agaaataacg gagacggacg atgactcagg 2100 tatattagcg gatcaatact ctccatccca gtacggcttt gaacattccg gctgtcgatt 2160 atcagtcaaa gcaatttgaa gcccctacta tcatgtccca tgtgctactc tgttcgccga 2220 cctggacgtt tcagtcatca gatcttcaga cctcgtcggg caaataggtg acttgatctg 2280 gcaaatgaat gaatctaaga gaaccataga gtcccgtaaa gcatttcctt caaccactcc 2340 acatattatg attttgttgg ttgtaataat aacaatgttg gcgatgacgc aaaccgggac 2400 aatagtctca caatactggc atcaccttgg accaacctgg cggctcttgc gtgagatcag 2460 ctatgcctac agttatgcag acgtctattg atgaccttga tgctgagctt tgtgattccg 2520 gccattggcc gttctgtccg agattgacta taacattggc ctcgataagc ttgcccattc 2580 acagagactg gtctggattt agcagatctt ggtacatcct cggatacggg actcactatg 2640 tcaatgtcta ggacggcgat gaccacgact attcgtaatg aagcaatatg ctgccctaca 2700 aatggccgga cgcggcttag acagatacaa ctgcatgtaa agcgcgttca gtgcttgctc 2760 ctcgaggggc ttctacagct tcttacaaag atcttcccac aaaatgttgc ccgatatgtg 2820 agacaageet gtetaaetgg tgattettea tgettgtget atgegeteta egtaetteae 2880 caaaatcaca acgtaccacg agagatatgt tcgagaccga cacggctgcg tgtaaattag 2940

cggtttcggc ttcgtgtgtg ctttggttcg ttcctgttac gagagttagg ctcttgttag 3000 aggettagaa tatgtgtgea ettaaaggaa gteeaggeaa tttaatttet atgetteatg 3060 gtagcgtttt ccttattttc ctaggttgtt ttaagagcta aatagccact agctacgaaa 3120 gcaggacgaa agttgagttg tacccaatct cggtgtacag tacaggtaga ttggaagaga 3180 tcaaatatat ttagtgacgt cgtaactgct gcgagtgact gaaggcagca ctgcgttaca 3240 tgtagcagaa gtgttctttt ctcacggttt cttaaaccca tttccctctg caagatttct 3300 gcaaggttct ccgactctta ttcgtttctt tatacatcat ggactaggcc ctatggcata 3360 aagccgattg gatgttttat cggagcctat taccaatcat tcctgatata atatatttaa 3420 caagatatac attaagaggt atttctgtta atatacgata tccatatata caggcgtcta 3480 gtctatcaat acagctcctt aatatgaaca aacaagccag accgacctaa aacaccagcc 3540 atatgcaatt atatacagcg aatttgccaa cttgttccaa cccacttaaa gcctaatcag 3600 actgaacaag caggattgtg aagaagcgtc ccgcggcagc ctctacaacc ctgaggccct 3660 ccattggaat ctccatcggg tcattgatgg ggtgtttagt ctcgtccgga tgaatttcgt 3720 agtgatcatt cgacccccaa ccaagcgctt tcccgccgtt agtaacggca atcgtatgtg 3780 tccaacccgc agaaaccatc ttgatccctt tatcatgggc attgatgcct gggacaaacg 3840 ttggcacttt catgatggcc ggtatctgtg taccttcatc acgaccagct actttgttga 3900 agtegggtte ateagaeata geggtgteag gaataetteg taegeeatet tgaaaagate 3960 eccageteag acaetgeeeg eeggeegtaa gageaacaet gaaategaeg eegeeggtgg 4020 gaaaatggac tcgctgccct cttaggctag ccacagtact gggtttgtcg acctttaagt 4080 cgcgtctcag cacagatgct gctgggggca cgaacgccgt ctgagcgaac ttgttataac 4140 cccatgcaag gaaatcaccg ctttccttaa tcacgaagga gtggaatttg cctgagccga 4200 tagtgettae gttgteggga ttttteageg egegggaget gttteeaggg aagteacaaa 4260 ggagggggtt gaggcagttg gcgatattgg cagctgtgcg cccgagttgg cctcttttgt 4320 aggcacccca ggacctgacc acgtctctga ctttggtgcg ctgccagtgg aagagccctt 4380 cagcagctat tgtgtccttg cgttttcgga ccctcgatcc tttcatttta gacgctgagc 4440 tactagetet attgeegeea ataagtatgg agatttggge gagaaegtga teagageeeg 4500 cggcgagacg tttgacattc tggagttcct gtatatgcaa tggggtgcgt tggcatttgc 4560

actgatggcg gaagccgagt ggctcacaat gttgttcgcc gttctcatcc tcgtaaatct 4620 cctgtaagag tcagttgatc agccttatgc atatcttatg tagacgctgt cgccgtaccg 4680 agaaagttcc ccagccataa acatcaccga acatcgtaag gacgaaacat gcgctccttg 4740 ttgcaacgac ctgtgcaaat attgtgtaat cgggtaaatt gacttcacta aaatccacct 4800 cccctggcat ctgagctgtc atggagttcg taagccttcc cagctggcca tggctattat 4860 ctccccaggt gtagattttg ttgtcgtgag tgagagcaat gcagtgctcg ccaccagccg 4920 ctacctgtac cacatccggt agctgtgtgt tettggtagg etgettgtac tgaaccggag 4980 taccattgcc cataccgagc tggccgtttc cgttttctcc gagcacatat actgagcact 5040 teetggaagg gaegetgite teeactaagg aagttgetgt aggagatgge egteagettt 5100 ttccaaacgc agtaagtggg aatggatgga aggataggga ttacatacaa gcatatctgt 5160 tgaaaccaga cgcagctgga gtgcctggtt ttgccctctt tgcattcgtt ccagcatctg 5220 atggacttgc tgctctcttt tcacccaatc caggtgcgcc tacctctgta tttgagaacc 5280 aatagtgcgg ttcctaagca cccttttttg tgcagttaga gcattggacg aagaaggaga 5340 cttgcgtttc ctgccgcctg agcctcttga gggccttttt tgggcatcat aaccgccgcc 5400 gtaattatte etgteategt egetgaagte atetteetet eetgeeteat teacataete 5460 ecegtectee aettgaeete titteeteeg aegettagat getetgggte eagagttaga 5520 taaagacgca tegggaactg teaggtteee aaatttaeea taagetatae gacteetagg 5580 tcgggtaacc gccggccgag acggagttgg agggggtgga ggggcaattg accaacgaga 5640 tgtcgaagct acagctgtag ggcgactctc agcagagtct aacggggttg aaggatcagg 5700 agagatcgtt gaatttccag gaaccggtag ttcaggatcc tctttagggg ttggagggtc 5760 aggagacact tcaggagtat gattcccgaa tgctagaaga attggagttt caggaaactc 5820 taccggagtc ggtggatcag gagatactgt taattctcgg gaaatcggta tttcgagatc 5880 ctctctcgga gttggaggat caggagaaac ctctggagtt tgacctctaa aatccagaac 5940 taccggactc tcaggatact ctaccggagt cggagggtct ggagacattt ccgggaatct 6000 atctgatgtg aggattaaag caaggtactt gactcagggc ttgcttacct gtcccgatca 6060 ttatctctct cctgggaata tccaagggag ttatcagggc cgccaccagc agaactaccg 6120 eceteaggat aaccetetee aagtatacea ceaggaceae eetecagaeg ateagtegta 6180

actccgtctt gtcgtttctc acgttcttcc ccaacatcct cctcagtatc ctcggtggta 6240 ggttcctgga tgctgtatga ccctagaaga tccgtagtaa cagggaaatg cgagaacgcg 6300 cccctcaaca gatcgccggc gccccgtaac tttgaatgat gcgtagtaaa aaggggctta 6360 gaatacacat gtttgagccg ctccgttggc tatcattgcc attgttgccg tttttcttac 6420 ccctattggc tttgccccag gcgatatctc ccttattgct acggctgccg ttatagcgtt 6480 ttgtccccgg acgacggccg gatggttttg ttggaccgct ggctctggcc gtagcgctat 6540 ctgagcgtct gtttaaccgg tcattgttgg cactagtgca gtgtctatta ggatcagtag 6600 ggattctagg gaggcgagta ttaggactgc aggggaaata caacccgtca gagctattag 6660 ggcggtcgtg gtcatggtcg tggtcgacct cgatagacgg aatcagccgg tctgcgtcgt 6720 gaaacagtaa tgctgtgtcg tttccttgag cgctgagcgg ctgttcgttt tcatctcccc 6780 agactggcgc aaacctggag ttaacacttt acctcagcgc agcagagaag caatcactca 6840 ccttgtagag cctggtcctg tagaggccta gatagaccat aaacagtcgg cagcggcata 6900 attgacggcc ccggggcttc tataagaaat ctatcaaagg cgtttgggat cctggagttc 6960 agcatgttga actctggtgg tccattaact cccgctgtcc ttatatgtcg gtcccccacc 7020 ttttcttctt gctcttcttg tcctcctcga tcttcatctg ctcccccgtc ttcatcatct 7080 cgcggcacta caagcggttg gtccagaccg ttcgatagtg aaattggcgc acaatccgaa 7140 gaagcagcgt ctgccaaagg ttggtactct tcatgttttg tttgctttgg cgggtttgag 7200 gtgtatactg gcaatgtcgc tgaccacctg cagttagcaa cagatccgct tggactggga 7260 aggcccacac ctgcagatcg aagtccacca tcagacgata accagctaga tttggggttc 7320 gcaagtgaag ggcttgcaat tgggacctcg ccgtcctcaa tttccaggag tgggatgtct 7380 agactgtaga aatgggaagt tgtggttttt ggcagctgac ctgccgtatt cgactcggca 7440 gaggeteget teteteeege eteaceeget tegtettegt catettetgt teetettet 7500 attecagtet egteaactte caattettet getaeegtge teteegtgta atateceatt 7560 catggggctg caaaattcca ggcag 7585

<210> 941 <211> 3757 <212> DNA

<213> Aspergillus nidulans

tggtagaaca acgtatgacc tattttcacc aacgaccaag ctgttggtga aaccaactgc 60 ttctgcagtc cgtactcggt gtacattctt tcgtaagcca cttggttcgc gtgccacctg 120 ctgtctatat ttgtccactg atcgtcaaca gtttcgctgg cttcaagccc aaagtatctg 180 cagatagagg gccacttggc actccacgac ccaggcatgt ctgtgtctgc tatattgaat acttcgccgt gtgactcgtc cgacttgaca agggaaaggt atagcttaac ccttcagtgg 300 ctcgcgaatc gaacacttta cgatgtagcc tcgaagatat tgtgatgggc tcaagttaaa 360 tggaacgaat ttgccatctc aagccccttt tgcgctgtaa gggacaaaat gccggaagag 420 caaggggcta gagaaaccca aggaggtagg attctgcact tttacggata tacctacaga 480 gacagcacgc acatgtccac tgttaggttt tgatcggcca gaaatcaatc gactattgtc 540 aggttaacat ttcagtctaa aaaagcatca tcagtccacc agcagttaat tttacattag 600 agccatgtca atccgagaaa gactgcttgc aactgtttcg aaatacattg ccgcgtacaa 660 cgagttcgat ccaagtgcta tgaagaccgt tcgcacacca acctgcctta ctcatggagt tgcaccgacc tgcaagttta ctcagagtat ggaggaacac acgagacata tgatgttatc 780 gcgaggagtg tttcgatcag tcaatgccag cattgtggac gacaacatta cggttgttga 840 tgaggtgtca agacaagttg tcgtgaaggt gaaaatcagg tgtgaaacga cggttggacc 900 ctacgagaac gaagcaatgt ttataatggc tatgaatgag gagggagctc tggtggatga 960 gatettteag ttettggaca cagecegttt tegecagtte cagggaegee tegaggagge 1020 tcaataatct aggaattgat gataaatggg caattatgaa atgtattgtg ctcggagaga 1080 aacactgata ttgtctgcac gcctttccaa aataagtctt agcaagattc caaagtctat 1140 gatcaaatca ttccaattac agacagctgc tatgagggaa gggtgtttag tcccagatag 1200 tcaagttgtc ttgccttcgc ctgactgaga tcctcaaagt tgagtcggga aatagaaagt 1260 ttcccgaaga aatcactgta gaaatttcct catcagggat tttcacatca tactttaaca 1320 gaatatgaca tagtatgatt ttgattttcg tggctgcaaa gaatcggcct gggcatgaat 1380 gctttcccag tccgaacccc atgtgatctg gtgtgggcga aacgagatgt gctgcgtgat 1440 cgcccgagtc gcgacgacgt acaaatctat aggggtccca ttctagcggg ttggggataga 1500 cagctgggtc ccatattcgt gtattgacga cgttaattgt ctcgcccttt gagatcacag 1560

ttccgtcatg taatgttatc tgttcagtaa cgtagcgacc cataccgact gtgttgcggt 1620 gacattaggg ttagctcaac atgattcata aatgaagcaa cgacacctac aaacaacgac 1680 aggtttgaca cgctgtgttt ccttcaggac gctgtccaaa agtttaaggt tgtacatggc 1740 agacttetee catecatety eccycagaac cetgaccate tectecegaa gatettetty 1800 gagtttctgc gaatcgcgga aacgacagat atcagtcaga gtcttaatta tgaggtcgga 1860 tgtagtatca attgccgctg cagcgaggga aagctgtgcc agcacggggt tgtatttccg 1920 atcacctgca atttcttcaa gccaatctag aaagttctgc ttgttttgat gcgcagagta 1980 tccctctgaa agtatggggt agagcattag tgccgcttct cggatatggc gtcgtagttt 2040 accgcaagaa ggcaggaaat acgtagcaat gggacgcaga gcctctggcc acttgcaaag 2100 atctagatcc gccacgaaca tatcagagct gtagttggtg acaatgctaa gccatttctg 2160 atcacggccg agttcctcgc cgacgaacat gactgccgac actcgagaga caagcgaggc 2220 tatggtgaaa tttagatcta actcatgcca acctgggaac accagattag tgtggcacct 2280 tgcaagactg catggtcacg tacaattact attcccccat tgtgattcga gaatcagtgc 2340 agtttcagca gagatgggtt tcatcaaggc cccttgaagg ccaaaaaaacg taagctagta 2400 accettatag acagetgget ettacegatg gacetggtea gtetaageeg gatageatet 2460 ttcattactt gctgtggccg caagacctca aagcctgata cgtgagcgtg gaactccttt 2520 gctataaaga catccgcatt gcaggccgga tggcttttaa cctcattggc atattcgggc 2580 ccaaggatta tcttgggccc tttttgagaa accacgcgaa atacacgcgc ctgcggttta 2640 ttttagtctc caacccagaa tcaaacaatt acacacgtaa caactgacca tctgaagccc 2700 attcaagata atgccccgtc catcgacaga aaagcgccgc cttgcctggt actgtcctat 2760 ctcaaaccgc ctgcgtccgt tcacggttgg gatatcgcat ttagctggtg ccagcagctt 2820 aaatatcaca aagacagcag acatcatcca catgatatag aggccgagtt catggttagg 2880 tagagttgag aaggggtgca ttgcgctatc gatgggaagt cgcaacatgg tcgcgcgtga 2940 tgtttcaaca agctctcgtc cgacgaacta agatgtgtcg agtatgttct atacagactc 3000 gccaagtaac aaggcgattt tctgtccaag ctggccttta ccactcgtgc tacgtggacc 3060 gctgccccta catacttgaa gcatgggctt gggaggaccg agggcagaga tgttgaaaat 3120 aatcattcct caactttcgt gttttgcaac tcattgggca tagctgcagc tacggaggaa 3180

tgtgtgaaag ttggacagga actetteett gaactaggtt egggacgagg ttetettaca 3240
tagtetgtet atcagteaac eegaceaact tggacaeeea teeteegaee atcaagattt 3300
gttgaaaata aateeetatt tgategeeea teaaatgeea eeeteeteet ataacatate 3420
etteteattg acceetateg atcaggegaa tggeeaagtt tttttettet ataacatate 3420
gtategggtg eggaatgaag ettetgeeet teaaaeeate eataaegeta tegatgteet 3480
tettgaaaag gtgeegttt tgaaegggga gategegtt eetgeeeag tteetgaege 3540
gaacaatgte ettatagtee gaceaeeeag ggeeaagtet gaagateaag tteeaetggt 3600
eeaggtaaag egeeatteea attgtgeeet geeggteaag aaactagaae agteteeat 3660
taaegtaeea tegagtette eegttaatgg tetetteaat eeaetegeeg eataeeeaae 3720
teetaatega eeaaeaeetg teattegtt teagatt

- <210> 942 <211> 5437
- <212> DNA
- <213> Aspergillus nidulans

<400> 942

tggatcatgg gcaaggatga catggtacgt tttctgacac cgattgataa ggccgacggt actaatccta gtagacgctc agcttcgacg ctttccaggt gattctactt tttgtctcgg tgctcttggt aaactatctc atcgccgatg ggaagtcgca ttggcttgag ggtgttttgt taatgatgat gtacatcatt atttcggtcg ccgcctggta agtgcagtcc catttcagtc cgattctgtc taacgttatt gtgcaggttc tatggatgag acagccgctc gtttctgata 300 tatcatatca ccggctcggc catttacttc atgcatatac aattgatacc tcttatcact 360 cctaatatta tatgtttacc ttcttttctc tctcgagtac ctagacccta gtctccgggc 420 tgtcaaccga atgacatatg tcagcatgtt cgagtggagc tgacggggtt agtgttacct 480 540 cgtcctggag ctcgaaccat cgggtaaata ttcaggaccc ggacggaggg aatgccgcat tgctttagtt ctagcaccca cggaacaaac tcggtcctct accttcgttc tcgctttcgc 600 tacatgaatc attctagacg aggtggcggt ggtcggccaa cctagcgtcc agctccggct 660 720 ttttattatt tccttatgaa gtcgattgaa aatccgcgaa tcaaatcccg agtcgaatgg gatggctcgg gcggcaaatg aaagactcga gcctcgacgc aacaaactag cgctagactg 780

ctcaagacgg aatttccggg gttcgttgga tggaatttgg agaaagctct caagctccgt 840 tecageteca gteegtttet ggeatecegt eggeeetget eteegteeeg geattateag 900 gcaaaatcca gggggacacc ggtgctgatg ttggatggga taccctccaa tgagtgtgac 960 gggtttaaag cttgctaagt ctgagccgta gttgcacgta tttcagccgc ctccgtacgc 1020 gggtttctca agaggatatc tcctccgtag attacctagg taaatggcta tcgccgagcg 1080 tcaaaccccg tgacttggcg ctttccctac actggtaggt ccttattacc tagacccagg 1140 gccgtagaac tccgtaggta cccatatgcc ggggccccgg tccaggtggg tagttggtca 1200 ctggccagcc cactacaccc tccccggtgg ctgggaccag tcagcctcga cacgagcatc 1260 accatcaaca tcagcaactt ccccatcttc gcatccgcgt caacaccaca tgaagaggct 1320 cgattcagat tcgcttactt tacgtgtcac ctgaagaact acgcccgtgc tcatggcgcc 1380 gcgttgcttt atctgacaac cccattctga cacctaacct tgatcccccc gtcgccggtt 1440 ggacgacetg teatgeetge gactgeaaac etactactag ceaacetaaa geataceeeg 1500 cctcaagctt ataggccaga aattccgggg tgacgggtcg ggtgaccact gagcgtcgcc 1560 gggtcgtgat gtacgaggcc taagtggtag gtggccagta ccgtggatgg ccgtgaagag 1620 ggactegtea gatececatg ceettgatet eeegaggeea ttetgegget ggetgggegg 1680 teggtacgea cegtacteeg tegtetegtg gttetgetgg gattgteate etggageata 1740 acagggccta ctaagagtcc aaggaggtcc aagaacgcat gcacgaaacc tcgggatgca 1800 ggggcacgta gcctcgcacc ctttaccgga atcacattct cttcggctgg tctggtcgga 1860 agttgaaagt acagceggeg egtecaggae tgeecaatae ggttgtaeea ggattgtgee 1920 gcacggcaga tetettaeta caggtggtat atttatttae gcgaetgtge cagtgecaet 1980 ggcacagtct ggccagtcct ggccagtccc taccaggact gggctctgtg ctctgtgcta 2040 tgccggcacg gctacctaca gttgccgacg agaatgctgt cttacctgtc gtcagttccc 2100 aatcccttca ttcctgccct tgactccgtc tggctcccca ccacacgcgc ggccccagga 2160 tttcgagcca gaaatcgacc agggcaagaa tctgagccag cggttatatt taccccgttc 2220 agcateggeg aateteegga aaageeeggg eggetgtete eattttetee attttteeea 2280 cggaggtatc tggcgagtgt aacggttgac gggtttgcac ggagctggcg cggtgatgtt 2340 acctgagtgt gggaaatcgg gtacactgat ccctgcggct gtcctatcgc agcgcagcaa 2400

taagactctg cctcaagcca gatggccgct gagacttgcg gggtgcctcg ggaccggtta 2460 aatgcgcggg gaacttccgt tgccggcctg ctggcaattc cgatcagtcg gtcacgctcg 2520 gcttgtgggt aagctttgtc tggagtcatg ggacctgagg tttcttccag cgcttggcgg 2580 atgtttcatt atttgcataa ttctcgcttg gatcagttat tttaatggct tgttcagtgt 2640 atccagttta gattgagtgt tgagtccact attaaataaa tcgttatatc agtattaatc 2700 aatatttaat ccagtcaatt caatgataaa ttctgcgtta attcagcgtc aattcagggc 2760 taaatgacgg tgaccagtcc cttattacct ttaccttatt accgtttacc agtcttaagt 2820 cggccgcggt cgggaaccaa tcctggccag ctgccttctg cccgctacgg ggtcttgccg 2880 getetggetg egaatgeetg agtgeetgat tetttttatg eeggatgtta tgeetgagge 2940 cgtccgatca tcttccccgc ggggagtctg catgacctcc acagcagtcg gtgtatgggg 3000 tetggetagt ettaagagtg etgaetatta gggttgatgt acttttttt eeetgeaact 3060 gaaagatgat cgctgagatt tcattatccc acatggattt catttcataa cgagattata 3120 gtatctgtcg gagtcgcact tggcccagtt atgtaatggg tcaagtgacg ttccacacgg 3180 gctgctgcta accggcttcg gtccgtgtcg gcgctcttta tacagtgcca gggcggcccc 3240 tegtggeaga atgetggetg aaegetgetg agaeggeteg tegtegtgtt gaeeggeege 3300 tggacatgtc cagtagtcct accgacaacg tcggctggtg tctggccatt tcactctctt 3360 tcagagtgcg cgccggaaga caggaagcag aaatcacatt ctcggcactc ggaaaggggc 3420 tecacettgg ggeetgeaeg eteeggeege teggtetgge ttegeetgtg etegaetgge 3480 tegtegteca gtegteeteg ttagtteate teeggaetet etetgteggg eeteteegea 3540 atttetecag cetgeecagg etttagteca etgettecat eagecatttt egetteegtt 3600 egttetttat tattegeeet eccetaceet tettegtete getettetet tececetete 3660 ttttgcgtcg tcccccccc cgtcccttac tccagacgcg tgcctgactg gagcccccga 3720 egetgggeet egactgacte geeteeceea cacteegege teaactteea cactaggtat 3780 tecaceceat egatteetta gettettage ceattteeca teceaattgt caattegtat 3840 tttctatttt tcattttcga ttcctattct ttttcctatc ccaatttgca tttccatacc 3900 ccgtcttcaa ttgactgccg ttccccggct gcgtttcctt caccggtttt gcttcaccgg 3960 actgggtggt ttcccgcgtc gcttttcgtg gtcgtttttc gtggtctctt ttcgttgttt 4020

getttegate eetgeeetee tgetgteett gtgeaegget egggttagga gaeggaaaaa 4080 gcaacgggcc agcaaaccca caacgccgtc gatgaatgtt tcgttcgttc tgctgaattc 4140 cgttgacgtc gtactgaccg accgtcgaac agtccgtggc ccggccttga aagacctgga 4200 agggcttgga acttcgcgtt gaaattcgcg ttgaaattca ggttgaatac atttcctgcg 4260 cgtccgactc gctcgcaccg gcggaatccc gggaattttg tcggagaaat acagtgcata 4380 ctggaagcgc agcggcctgc tagggagtca aaggagccac ccgcgttgcg accgctgtcg 4440 ceggecetge actetecegt egteeeggee gtetategtg etegettgee gteetgeegt 4500 ctegettttg etgtgteett geetetaegt ttetgggtga gaegggeeeg teeegtetga 4560 gcaaccgtct aaaatcatgc ggtcaagcat cgcctgcgcg cgctgccgcc gaagtaaaat 4620 caagtgcgtt aactccggga tcgacactac ctgtcgcgcc tgcgagtctt ccggtcgaga 4680 atgtgtttat ccgacgcctg ctatcggcgt cggcggtgcc aaacgagatc ttgccgccct 4740 cgccgatggc gaggaccgca atggcgattg ggacagcccc aagcgccagc gtcccgcaag 4800 gccgtcgggc cctcgtccgc ggccaaggat gcttccaggg cctctctcga tgccctggac 4860 tegtecatet tgaeceteaa ggtetgggag getgteeteg atetttteea gtegeaetat 4920 gegactette teccetteet ceatecegeg tettteatga gecagattag geagetttet 4980 gggagecagt etteaceate ggegeetaca aatgeateea tetetaatee eeaagaeeet 5040 cctcgagatc aggcgccgaa gccgtcggcg cctcctgacc cgctgatccc tctcggcgtt 5100 ctcgctctta ctgcccgttt ccaccctcaa ctcgtcgcct accattcacc cgcctcacca 5160 gggcacccaa caaatccgct cgctgcttcg gagttctatg cgacggcgct gcgcagccga 5220 ctagccggcg tagatggtgc cagtctcgcc gtgcccgacc ttacccgggt ccaggcgctg 5280 ctcatgctcg ccttgcatga atggggcatg tgcgcggcaa aagtgcctgg ctgtatgttg 5340 gaatggccat tcgcctgtcc caagccatgg ggctgccgtt tgagctggaa aacgacgtgg 5400 5437 tctctcgtga cgtaccgcgc tcgccagccc tgaaaat

<210> 943

<211> 3465

<212> DNA

<213> Aspergillus nidulans

tatctgattg tggggcgtgt tccctacggt aggtcgaagt atgaagctta tctatgttgt 60 cgatgtagga cacaaattgg tgatttgggc taacaaagcc accacaattc ccgcagaagc 120 ggacaccgtc agactccgtt tgcacgcgtg tagggagagc ataatgagaa ggtcgagata agagccaaca tgcaggagaa gcagtcgcac gacgccgata atggggagcg gacggaatta agtaattccg atgatttgtt taggatggcc ttgaaaggtg gtcatttcag atcaqaqcat 300 cctctcctca tagcttggct gagggcgcat attctcttct cagtaatggc ccggtgctga 360 gactetttae tittatigie igatitetti eigieteeat eeetteigit aiggeggate 420 aacactacta tcagtccccc gctccgggag tcgctcctgg tgaagacccc tccgatccqa atcgaattcc ccagcaaact ccttatccaa gccaataccc tgctggatat actccgggcc 540 ctcctccgcc gcagaccact gcttactatg gagctggctt ccggcaatca gcaatggccc 600 gcctccgcat acggatcccc cccgcctgta ccacagcaac ccgtgccagc ttcgtcccag ttcgcataca ataccagtcc gcaaccggct ttgggatcac cggctgaccc gtcaatggct ggcttgacgt cgcagatgag tgggttgggt ataatgggag aaggagccgc tcggagttcg 780 aagaaaaagc accgccatgc acaccacaac attggggcag caccggcagt gcagcaactg 840 ccaaccggtc cagaagacgc tctgccacag ccttcatccc agtttttaaa taccgggctg aaccaagece etegegetgt ateceegget etgagtgett eaggaggtat eeegeaacca 960 acatttggag ccgcacctga agcagctcat gggacagttc ctactcaagg aaggattgac 1020 ccggagcaga ttccaagtat accacgatca cgcgatatcc cggcgcaata ctactttagt 1080 catgictate ctacaatgga acgccattta cetecaceeg eggeagttee ettiqtqqet 1140 cacgaccagg gtaactcgtc tccgaaatat gcccgcctga ctctaaataa catcccctct 1200 tecteegaet teetttegte taeeggaett eetetgggaa tgateetgea aeegttgget 1260 cgcctcgacc ccggggaaca accgatecce gtactcgatt ttggagatge gggecetect 1320 cggtgccgcc gctgccggac atatatcaac ccattcatgt cattccgatc gggaggaaac 1380 aagtttgttt gcaatatgtg tactttccct aatgacgttc ctcctgaata cttcgctccg 1440 atcgatgttt caggggctcg tatcgaccgg atgcaacgcc ccgagctcat gcagggaaca 1500 gttgagttcc tggtgcccaa ggattactgg aacaaggagc ctgtcggtct ccgtacgttg 1560

ttcctgatcg atgtcagtca ggagtcgatc aagagggggt tcctgaaggg cgtgtgcaag 1620 ggtattatga aggctcttta cgaagaagaa ccatcagata acacagatga aactacgcca 1680 acgcgcaagt tacctgaggg ctcgaagatt ggaattgtca cttatgaccg ggaaatacag 1740 ttctacaacc tgagtgtacg ttcctatcct ggataccacg tggagacgcg ctgacagcga 1800 ctaggcggaa cttcaacagg cacagatgat ggtgatgacg gatctgcaag acccgttcgt 1860 ccccctcagc gacggactgt tcgtcgatcc gtacgagtca aagtaagatg tttacgttcc 1920 ctttcggatt cacttgctaa ctctgcaaag gcatgttatt acctctctt tagaccaagt 1980 cccaagtatt ttctcccgtg tcaaggtccc agagacggct cttttccctg ccctaagcgc 2040 acgactttcc gctttacagg ctactggtgg taaaatcatt ggggccatca gcacgctacc 2100 aacctgggga cctggggctc taacgcttcg cgatgatcct aaggcgcatg ggacagatgc 2160 ggaaaggaag ctgttcacaa cagacaatac tgcctggcgg gaaatcgcag gcaagttggc 2220 cgaggctggt gttggtgttg acatgtttgt agcggcccct agtggaacat atatggacgt 2280 tgctactatt ggtatgcact actttgcccc gtcgatgaat gtgctaacct ccataggcca 2340 cgtgcctgaa gtaacgggcg gtgaaacgtt cttctatccc aacttccacg cgcctaggga 2400 tatteggaaa etttetgaag aagtggegea tgeegttteg egagaaaagg gttateagge 2460 attgatgaaa gtccgctgtt ccaatgggtt gcaggtttcg gcgtatcacg ggaactttgt 2520 gcagcacaca ttcggcgcgg atctcgaaat cggcgcaatt gatgccgaca aagcgattgc 2580 agttetttte. agetatgaeg geaagettga egegaagetg gatgeaeact tecaagetge 2640 gttactttat acgtcggcga acggacagcg tcgggtacgt tgtatcaaca tagtggcggc 2700 ggtcaacgat ggcggactgg agaccatgaa gtttatcgac caggatgccg tcgtgagcat 2760 aatcgctaaa gaaggtatgc tttatctttt gttaaatgga gctggtagct gacaggagta 2820 gccgctgcca agacgctgga caagaacctc aaggatatcc gagcgagcat tacagagaag 2880 actgtggata tetttagegg atacegtaag gtgttttetg gategeatee teetggeeag 2940 cttgtattgc cggagaatct caaagagttc tccatgttca tcctaggcct gatcaagtca 3000 cgggccttta aaggtatagt tcactaatga ttcgagagaa atttgactaa cttcttgtac 3060 aggcggccag gaatcatcag accgacggat ccacgacatc cggatgctac ggtcaatagg 3120 ctgtactgaa ttatcactgt acttgtaccc aagaatcatt cctatccata acatgcagcc 3180

agaggacgga ttcccgaatg agcaaggcca gctacaagtt ccgccttccc ttcgggctag 3240
tttctccaag atcgaagaag gcggacgata tttggtcgac gacgggcaac agtgtcttct 3300
atggattcac gcacaagtat ctcctaatct tttggaggac ctcttcggtc ccgggcagac 3360
atctttgcaa gagctcagcc cgcaaacttc gtccattcca gtgctggaga cacatctcaa 3420
tgcgcaggtc cgcaatctgc ttcaatactt ctctaccatt cgagg 3465

- <210> 944
- <211> 1599
- <212> DNA
- <213> Aspergillus nidulans
- . <400> 944

atcttgtgcc gtcgaggccc gtctggccct ggattggagc tgccgctcaa catagaaggc 60 cgagtgcaga gcccattgcg tcatgggact ctgtgatgga cagccaatgg tgagttgtgc 120 cctagggtac ccactgtcga tcgttttcgt attagaagct ccaggctcat gctgggatat 180 gtaggaggta agtacgacga tgtagtgcgt acacagtact ctgagtatat tttcgtcttc 240 taccgacttt ctttccctct ctctgagctg gtttgaactg gtctgagctg agagggcctg 300 aatatttatc ccgccttgct ccacaaatcc tcccccggat ggcagctgtc ttgagtgctg 360 cagccacctc gctgtcttca ccagttctgg catggggcca cgccgggtgc tcgccgggcc ctcgtcgcag actcgcacgt catgcgagac cagttggcgg cgcgtaccgc ctcactgcga agaccgacgg gttccttatg acggtgaaag acgcgcattc atcctacagg agccgagtgc atatcacttg gagtagcctt ggagtaaccg gggaagatca ttccgtctcc cgtaaatcaa 600 atattagted atgeaggttt getgeggtte egegeggage gatggegtee egeegggtet 660 caaggccttg gtcactgttc atgttcatca acgcactttc cactatcgtt ggattctatt 720 catgctttgc ccgtcactct tcgatcctct atgtaaccct tgacatccac gtgattttaa 780 tttttgattt tttatttccc gtttgtgtct gcatccactc gggctgctat acacttccag 840 actaggagta tacaaatacc tcaacctgga cagagcaccc ggtcgcccac tacatgcaat 900 taagcttata tttaagcatt gacttcttcg ggcgcttgtc acggtggcct ccatacagaa 960 acaagaacca ctctgggtcc actagccagg cagcagggtt ccgggagcaa tgtcggacgc 1020 tagtttcgct taggataggg cgagtggcaa atctggtcgc caatcatggg cccggttcgc 1080

gtttagtctg aagtactgaa acgcgcaaga gtcgagggac ggaaacgggc tctaggaccg 1140
ttagataggc taccgtattc cataggtaga tagggagctg tttgggaatt tagggtccct 1200
ttgctgctcg tacccataat gtgctagcag gaacgtgtct attgctggtg gtattgcgct 1260
gatcccaagg gacaagtata ggcaaccetc cgggagtagg tacgagcaag tctctacggc 1320
aaagatgcaa gccgacccaa gcccgaatcc ttactgccag agaccagaca ctgctgacag 1380
cgggcattgg tcctcagctg gggaatggta ttacctagct tggcacacct gagcataccg 1440
taggccaatg aaacggtatg tcatctgcct agagtggctt gagagggcag ctcgcagtgg 1500
tctgatggcg aggtaacgcg ggcaacatag ttgaatcagg cctagtctgg acccagagac 1560
gttttgcaaa gacaggaaaa gcaaagacgg tgtagccat

<210> 945 <211> 1975 <212> DNA <213> Aspergill

<213> Aspergillus nidulans

<223> unsure at all n locations

<400> 945

acatatetea egateaagae eetteeageg aaaatettge eeetgatgag taetggaege 60 120 ttctggaggt gcatcagctg gaaatgagga cgctgtcatc cacgggtcat tcgactctat 180 atcatctggg aacgcgctga acgggatagc actctgcggg aatgtgtgag aatgcgctgc 240 aaatgtgcct gcgtgaaaag agccaacaga ggtgtcaagc tgcggtctct taagggccct 300 ttegetegag ttgtetttet cetetgeeet ettteteece egttttggtt teeactgagg 360 aacaagagct cgcaaggcga gatcctcctc caaaggaact ccatcacggc tatcgctgac aacagcqttg ctggccggaa gttgggtgta gtatgaatgc ggatggccga ggcagtattc 420 aaaaaatgca tccacgtgca tcgcgcgcat ccaacgctag ggaatgatta gttactggaa 480 tcaaaatatg cgcgacgtcc acatacttta agacgcactg cgtattgttg aaccttctga 540 600 gtgctttgtt tcttctccat atcgggcggc tccaccccta actcaattgc cagctggatc 660 cacgttttca actctttgct atctagcttt tttatcagct cccatagcgt aaatatgcta aagctcttcc cgtcgctgcg gggaggagac ctaaaagtct tgcgtaactc ggtcgaatcg 720 780 gcggagaggg gcacgttggg gttgcaaaag aagatgaaaa ggacataggc atcgtcaatg

ttttcatccg tgatgtcgcg agaaggcagg gaacggacct ccgcccggtc tatttgatcg 840 cccatgggtt tctggcgcga gttatcaaat actggaggag acatcgacgg tcctgatcgc 900 actgttggtc ctggtggaat agccgagcgc gcgacagtag gcgacgattg tagactacgg 960 ggagttgctt tgcgctggac cgggggagac ttggagatgg ccatctggga actggcactg 1020 ccaatggatg aggcgctctg caatccaggc tccagggaag cagggtacct ggcatattgc 1080 tggattacca tggcggtccc gcctaggtca ttccgttcag gctgactggc catggttgga 1140 taagcgccct gcatcgcgaa cgacgatttc gcgacagacg agcaagctgt cggaaattga 1200 tagttgaggg ccgagcgtgt atatgcttca tagaatttaa atcagggcgc atgaggagct 1260 tcgggtagac gatctcgaaa atgatctacg gcaaagcgct agtatcaggt tgtggccgag 1320 tgctggcagc cagggaccag cctggactag gcgcatgaga tgatgatgtt gggagatata 1380 tagacaagaa cgaggatcat gcagatgact taagttgtca agttgatcat cacaaaggcc 1440 caaggggtag cagtccgcca tggccctgga cagcagatgg ggaagagggg aacggaagag 1500 ggttgctgta tactgccggt ttatctgcct gtgcgaaagg ctacttgtac tattaggctt 1560 gtgcttagag ctattattat tatcaaggct ctgggcctca tatcttacta ggccatccat 1620 gggcgtacaa gcctactagc ctggtcactt gtcttttctg cacttacccc ttggttcctt 1680 ttcacttttt gctgcggaaa ggggatggtt accatacccc ggataatctc ctttcgcccg 1740 gttacttact gattcatcca tttgctttcc gaccttaacg gaattgcact nnaaggtttg 1800 ctttctcgtt gtattttaat ttactctttt tattttgaac ttttcttttt gactgagttg 1860 acattactct tttttcttat ttttatctat ttctaaattg ttctttattt aattgttttg 1920 gttctgttcc gtttgtttat ctttttatta tatccttatt tttacttcat ttttt 1975

<210> 946

<211> 4486

<212> DNA

<213> Aspergillus nidulans

<400> 946

gcgggtacgg caacccatga cgcctgcaca gcaaggactc atgcacactg cctcgctgct 60 tctggctcac tgccggcagc agtggcggta cagctgacgt ctgcgggagc gcaggtgcca 120 ggtgcaagac ggttcagccg tgccttctcg atacggaaag aatggacctg ttcacgtgag 180

gtgtaaaact cgctagaatg ccagaaatga gctggggaca gcgggggccc gctgggggcc atctagggag cagtctagat caccgcatcg ttcatcatgt gctcataaaa aatcaagtca 300 cgagcgaact tcggagttct attgaactta cgtacttttg gcgccccagc atggaagcga 360 aaaaagtgtg cagaacctgc tgtatccgaa ccacacatca tcgtgaaacg aggacggcaa 420 tgacttctgc ccgcgttcat gcgtgcccag tggcgctgga ttggcaatca atagatatct 480 agattetgat tggttgatgg geggttggee teggaagagg ttagteateg geteagtggg 540 ggcttggggg gatcccgagc caaacccggt ctttcgtcat tcgggcctcc tttttcgtgt 600 ctgcagacta ttgcagattg aatgaggcat tattgattat tggtattttg gctgccagaa 660 tcaagtcaga gttgtcgtgg ttctgtgttc atggtgattg caagtcttgt gggaatgtac 720 tcagtgtaga tagagttccg cgcgacgccg tttgcagata qcttcccaqa qqaccaaqac 780 gaccaagagt tgatgcctgc ctgcctggcc tatccccgca aattcgggag tttaggctcg 840 tecacteage ggeggeette caacgtggaa cacatgggte agtteaacgt cateatgaac 900 gtcctccaag ttatccaagt tcccttggcc cgctgaacgt cgttgagcag tctgagaggc 960 ttaccatgcg atctggtcgc cagagatggt gtcatcattg gcactgttgg ccactgttga 1020 cacagtggcc agtgagaccc ggcgggtgct ggaccattgt cgtttgcagc ggccgctcgt 1080 ggtcctgccg cctcataaat cgaacaagtt ttcctcttct ctcactcaat catcctaacc 1140 tccgctgagg cattttagct gcttagctgc attacggcga cacgcacgaa atactgtgtg 1200 ctgcactaag ccaacetetg ataacaettt acceegatee tteattettg ttggtteage 1260 cgcttcgctc ttccggaacc aattcgtgtc cacatctggg gttcgggtct attcgggcta 1320 tegeaactet geteagtege eteaactegg ceetttgeee egacatetee egecagactg 1380 tggagaagcg tcggccggga cgaccaagaa ctgagtatac ggctggatca tqqctcctqq 1440 tgcaaacata catatacccc ctgctggccc ccccgaacca ggacctcttt actcagattt 1500 ctaccaacag caaatcgaaa ggcaacggaa caataactat cattcgacat cgctaagaaa 1560 catggttgct acttctgtga accgtactgc cctgcaccct ggtggtgtcc agtatgtcat 1620 tctacctcgc tgtcgtggct tcagtcgtcc atggtactga cctcactgtc tagacccggc 1680 aagggccaca ccgaactcga agaagaactt catgaacacg cccacatcga ctacgaccgc 1740 gttgctattg taagctgaac acctcgacca tgcctcattg tcgtttagac tttagtacta 1800

actagactag attgccaacc cttctgtcgc tgccctctat gaagacgctc ttgtctacga 1860 gactggtact gctatcacat caagcggtgc tctcacagcc tactctggcg ccaaaactgg 1920 tcgctctcct tcagataagc gaatcgtgaa ggaggagtct tcagagaagg aggtctggtg 1980 gggacccgtc aacaagccta tgaccccgga tgtaagtcaa gctttctgtt ttatcccttg 2040 cctagccctt tettegteea teatgeacaa getgeegteg aettteeete egagtggtta 2100 catttgttga taaatgcctc atgctctatt gggttgaggc attttgaaat tgtgctacct 2160 gaccaactag cctggtttgg gtttgtcgtt gtcgtgggtc gtctgtcgat ctgcatgcag 2220 gtgccttgca gggctagtgt gacgtcacta tacataggtc ccgttactga cagggtttct 2280 ccaggtctgg cgtatcaacc gtgagcgtgc tgtcgactac ctcaacaccc gaaaccgtat 2340 ctacgtgatt gatggtttcg ctggctggga tgagcgctac cgtatcagcg tccgtgtcgt 2400 ctgcgcgcgc gcctaccatg ctctcttcat gcgcaacatg cttatccgac cttctgccga 2460 agaacttaag cacttccacc ctgactacgt gatctacaac gctggttcct tccctgccaa 2520 ccgcttcact gagggtatga catctgccac ctccgtcgct atcaactttg ccgagaagga 2580 gatggttatc ctcggtactg agtacgccgg agagatgaag aagggtgtct tcaccatcct 2640 cttctacgag atgcccgtca agcacaatgt cctgaccttg cactcttctg ccaacgaggg 2700 ccagaacggc gacgttactg tcttcttcgg tctgtccgga actggcaaaa ccaccctctc 2760 cgccgacccc aagcgtgctt tgatcggtga cgacgagcac tgctggactg accgtggtgt 2820 cttcaacatc gagggtggct gctacgccaa gtgcattggc ctctccgccg agaaggagcc 2880 tgatatette aacgecatee getttggtte egteetegag aacgtegtet tegaceceat 2940 cageegegtt gttgaetaeg aegaeteeae eeteaeegaa aacaeeeget gtgeetaeee 3000 catcgagtat attgagaacg ccaaggttcc ctgcctctcc gacagccacc cctcaaacat 3060 catectecte acatgegatg etegtggtgt actececet atetecaage ttaccaeega 3120 gcagaccatg ttccacttca tctccggtta cacctccaag atggccggta ccgaggacgg 3180 tgtcacagag ccccaggcta cettetette etgetttgce cagecettee ttgccetgca 3240 ccccatgcgc tacgcccgca tgctcgcgga caagatctct cagcacaagg ccaacgcctg 3300 getteteaac aceggatggg ttggegetgg egecaceace ggeggeaage gttgeeeget 3360 caagtacact cgtgccatcc tcgatgccat ccacagcggc gagctcgcca aggctgagta 3420

cgagacttac gacgtcttca accttcacgt gcccaagagc tgccccggtg tgcctgatga 3480 gcttctgaac cccaagaaca gctggaccgc taccaccagc ttctcggacg aggtcaacaa 3540 gctcgctaag ctgtttaacg agaatttcca aaagtacgct gaccaagcca ccaaggaagt 3600 catcgcggcc ggtcccgttg tccagtaatc ggctggtgaa gatagaatcg tttcctttgt 3660 tattttcctc tttattccca tgatgccctt ttctgttgtc taaaatattg catggcgtgc 3720 tgcgtttatt tgggtttgct tgctttctgg ggtccgggaa agatacaatc cggctttgcc 3780 ttttggctcc tgtgctaaat agtcagtaga tgttagacaa tccagtgqct attcccaatt 3840 ctttctcttt tggtaacgtt ctgtggctca tggaagaagt caatcgtagt cccaccgatt 3900 atcccaccga ttatgtctat gatcggttgc cactctaacc gtacattatc ttgcaagctc 3960 ctgtcacagc atgttgacat ctttgctggc tcggtccttg attaccaagg taagcctgaa 4020 catcaagaat gcatgccttc ttatctgggg acgagattgg attagtgtcc gaggtcagct 4080 tacctttacc ccttccttgg tatatgtaga tcaaatttgc atgacataaa aacccgagtc 4140 caattaggag acttatcgaa ttatttttct gtcacggagg tgacagtggc cgcaaaaata 4200 tataggcgag gacgacggac tacattecte egegcaatgt tgggactaag eeeggtaegt 4260 actgtacttg ctaataatat tgggaagtgg gaaccgggga ctcaattatg gcctggtgca 4320 gtcccaacaa actaaatagg gctggggcag gatatagact atctgactgt agtatattga 4380 tatcacaccg tatacccggt acatcaagca ttgttccctt catttaaggg tatgatgatc 4440 agcaggatca acacctcacc caggttaggg ccacatgtac accgca 4486

<210> 947

<211> 2452

:212> DNA

<213> Aspergillus nidulans

<400> 947

ggatcggtgg gtaacatatt cgctggtagt gcctccgcag cgtccaaaga acccatctca 60

tcttcgatat tatcctcaac caacgatgga acgtcaagat cagactcgct ttgctccgac 120

gaaacgacgt ctaatgtctt cgaaggcgga atccgtccgc ggaggcgtcc aattgctggc 180

ttggcgtccc tgaatacttc cctccagttt ttcaataagg acaccttttc cccgtctccg 240

ggggcgtaaa tctcgaccac gtccgtctca tcctggggat gtttccatgc gacaccttgg 300

aatgaggtta agtccgctgc gagagtagcc gctcctttcc tgcgtttgga ggagggcgcg 360 ttgatatggg ttggctggtc gatcggccat gcacctatgg cgcgaagtct cctaacgacg 420 gtggggtcgt catcatagta atcatcagaa atctcctccc agtcactgta taggtctgcg 480 gtttcgaggg acggatcgtc aggaaatgaa gaatcgtacg tagcagctgc tgctaggtca 540 tcctgtgcca tgattagttc aggacgaaaa gaccattaaa gggtgcgtgg gggaccaagc 600 atacagcggc agttgggtct gcttcctcga cccagaaaat cccatcatct tcgaactcat catactcata gtaatcatcc tcgtcatcgg acatggccca gataaaatgc gccgagagag tactgtgaaa acaggtggaa agagcggatt tgtgaaaacg agactaaagg gagcgagaac 780 aagcagccgc ttgagcgaga gcaccgtcac tctgagggca gagtatactg aatggtataa 840 taagggttgt taatacgaaa aacaaaaaaa aaaagttggc tgatgagatc agaggagcac 900 cgcttacgct tgtccagcca atgaatgcca agagatactg tgaagaaaaa gtgcaaccgc 960 atctggtcac gtgaaatggc ttccccgcat cgcaacggtt tgcgtcggaa ggggggatcc 1020 accoattcat acaacaagcc gaggggactc aggtgagctt caaatgctcc ctcgctacct 1080 ctccagaaac tttttgtgtc gtgttattac ttctctgagc atgcgagttg ctgttgattc 1140 ttagtataat ccacggctct gcgcatcccg tgcccctctc cactgcatac aatgccgctc 1200 teatetette teegeactte egecegeetg gggeagaegg ttgttgeteg aegeteacga 1260 cgaactgctt ccacagtaac ctccaattcc tcgagtaact ttcgcgcatt agactcgatt 1320 ttaattgcca acaggggaga aatcgctctg tatgtgcacg atccacatct ctgacctcac 1380 taacgacata tagacgagtt ggtaggactg cggcccagca tggaattcga gtcactacgc 1440 tctatacgga tccagattcc caagcgcagc atgctttgag tacaccatat gcattcaatc 1500 teggeteegt gteegegtae etegatggag acegtateat tgaaategea aaggeeeaag 1560 gatgccaggg aatacacccc ggctacggct tcgtatgtat aatctgcagt gaagtgagca 1620 tgatgctaat ggattgttca ttgatagctt agtgagaact cagagttcgc acgaaaatgt 1680 acagaagcag ggctggtctt tattggaccg ccgtggaaag ctatcgagga tatgggagat 1740 aagaggtgcg tetaetteet tgaggettet etaegatata etaacattgt aettetgeag 1800 tcagtctaag catatcatga ctgccgctgg agtgccctgt gtccccggct accacggtga 1860 aaaccaagac cctaatttcc tcgaagcgga ggccgataaa atcaaatacc cagtgctcat 1920

caaagcaatc aagggcggtg ggggcaaagg aatgagaatc gctcgttcaa aggaagagtt 1980 tcaagcgcag cttcagtcgg cgaagtcgga ggctatgaac tcttttgggg atgaccatgt 2040 cctagtcgag aaatatatca caacaccgcg acacattgag gtccaagtct ttgctgacaa 2100 acacggaaat tgtgtagcgc tgggagagcg agattgcagc atccaacggc gacaccaaaa 2160 aatcctggaa gagtcaccgg ctcctcacct gcctgatgcc acaagaaaag acatatgggc 2220 aaaggctcgg tcggccggt tagccggttc gctacgaagg cgccggtaca gttgagttta 2280 tcttcgacaa cgatacgga gagttcttct tcatggaaat gaatactaga cttcaggtgg 2340 agcatcccgt aaccgagatg gtcactgggc aagatttggt gcaatgacag ctgaaggtcg 2400 cggagggcgc cgagcttcca ttaacgcagg aagaagtgga aaacaatata gc 2452

- <210> 948 <211> 2503 <212> DNA
- <213> Aspergillus nidulans
- <400> 948

gagccaccag ctcaaatcgg agaggaagta ccttatagag gaccttcagg atcttgctgc 60 tgagaaatcc gtccgtgtca ctattcttag gtaaggaact ccgcttctca aaggatagac 120 gatactgaca gcttgacagc ggcgatgtcc atctagctgc agtcgggcag ttctattcaa 180 accctgatct caacacccc aaggataagg actaccgata catgcccaac atcatttcgt 240 cagggatcgc agacgcccct acgactgaaa tgatatctga tacgctcaat cgacggaacc 300 aggtgcacca catggacagt aataccgacg aagatatgat tccgatcttc acgcatgatg 360 tcaataataa accgcgcaat aacaagcgcc tgctaccacg acgaaattgg tgttctattc 420 gcctatatga gcctggtatg ttaaagttat agtgttcgct ttcgagcttt cctaatcaag 480 aacaggcact acaccacccg ataccccaga gccggagtcc ccagctcctg ctatcgagcc 540 acggccgaat gcgctacaaa gaactttgtc attgactcgc ggagacagac cccagggcct 600 tttaagacga ctctccggca aaggccgccc gccaacaaaa gagatcagcc tcagccgccc 660 tectectgaa eggegaatga geatggaegg geegtteeet eeageaggaa eaggggatte 720 780 ctacttcccg gtaccagcag atttccgccc tggtccgttc ctccgacgac caacgaacct 840 gagccaaaaa tetgecaaga aagegaecaa aegaggagat gaeggegtag geacattegt

caacctagaa ggcgggttgg ctgtcacgct caatctggaa ctcaacccta aagacccgtc tggtatcacg gtaccgtata agctcctcat tcccgcacta tggttcgaag ggacagagta cgaccetece geageaceag ttaceaaggg ttggegeaaa tggetaggtg tteggeggaa 1020 cgcctcgagg aaagcttccg gggatgatta cgaagcagaa gaagggttta qcqacqaqqa 1080 ggacgaacac aaagctccac cgtccaagga agaacatcct caaagtcact ctatgactgt 1140 gggagctagg cctgcaccga cacccgcgcc cgcacctcga cactatgagg agtacgacga 1200 tgatgaggat gagteggaat tatteetega geeggageeg aaaaeeagge eeaatgtgaa 1260 gcgcagcaca agcataaaga agtggtttgg gcgttcataa agggacggga cgagtccatt 1320 cgcactgaag cgtgcctcga tatattctta tgattttgct tgacgtgtgt ttagaaacga 1380 ctgatgattt aatgatctcc atgacccgca tatgtacagc atataccagc aatacattgg 1440 atagggtcga ttatattatt attctatcca agtaaacgat ctcaatgtat cttgcagctg 1500 acttttaaga gatccgggtt ttccgagcct taacagtaat attattactc aaaatctcaa 1560 atcogoctac agoctoggat ctatataatt agtoggtact toaatttgca ctgttgccga 1620 aacatgcacc ccgcacccct ccatggctgt ttagcctgga aagcaggcaa caatgtccac 1680 ggctaatttc cccctgagta agtatcggcc cagagcattg acgctgagca gctgcacggc 1740 gtcacggcgt gaggagctgt cataggacta tgccatttgg agacagtccc tctcgactct 1800 cgatgagact gagaatataa acgttgaatt cccatactgc tggaggaatg attcctgatt 1860 gccgactcta tatgtaccaa ctgattctac cttgaaagct tttagcatag actacaattt 1920 atagtttagc ttactgtcta cattgtcatt taccaccatg ttccatcgac tacgcgacct 1980 ctttttcgcg acgctggcac ttcagtccat ctctgaaacc ccagtcgtcg ctggtgcaag 2040 cgcagaaccc ctacctccgc agctgtcatt cctatacaca gcatatgtgt actgcaaagg 2100 cactctgatg aatgaagatg gaccccacgg cattcgtcgt gccataccca ttgtcggagg 2160 gaacttcaca ggcccacggt tgtcgggtat gtggcatatc tagttatatt ccgatatatc 2220 atctgcctgt gctgcagatg acaagtgaac tgatagtaag ctttccaaac aggcactatc 2280 ctcgacatcg gcgccgactg gggcattgtc gattccagga ctggtatttt ctccgccgac 2340 acacggtata acctgcggac agatgatggc gcggacatct ttatacagac gtcaggcccg 2400 gtagctccat cgggaaatct gcatctccga ctggtgtttg agacaggaca tccggactat 2460

<210>	949	
<211>	3309	
<212>	DNA	
<213>	Aspergillus	nidulans

949

<400>

taaatcgggc cacagcatcg cgtccatatt tatgtctggc tcccaatgcc aaaatgacat 60 cctggtcaaa ctcattgcat cggcatgcgg catgccggtt ctaataccgc gctatatcca 120 tgcccgtgtc gcaatcggag ctgccatgct tggggcgaag gccgccagcg cggatcctga 180 aggcaacacg gaagacttat ggagtatcat ggatcgaatg agcaagccag gaaggaggat 240 tgttccgacg gacaatgaga acgaaaaggc cctgcttgag gttaagtata aagtcttctt 300 agagcaatgc tatcagcaaa agcaataccg cgcgctagtt gatgaggctg ttaattcgtg 360 gaagttgtct tagttaccct gacatctggc tctgcccgtc tgcgcaaggt ttataaaacc 420 tetteattig tattaageae agggtagiga gettiteeat taatattaat taagetaete 480 tctaacaaat gtcactggct tcgtcgatga ggacctaacc agaaggggaa acacggactt 540 600 cctacagaga cactagtaaa aaaggtaaat tcctcagctg gacatggtct acgcgcggag ecgectictt egtaatettg atgeetgaat ggetggetgg acaaacgtea acaacacett tttccgagat acttagetta ggateategt ceatatgace eteattttee tgtetaeate ctttcacggg gaagcctgtt ctcttgcact tttcaggtga ccgcatgctg cggggaatga 780 catcttatcg tctgatcccg tcccccgtag ttagccttgg cagacttgag ctcactttca 840 gttcttctct cgctccattt ctgtttctgc accataatgt agttcgaaac tccataatcg 900 atatttctac ataataaagt gegggteact tteaacgtte ttettgatte gegetgtett ttctgcgccc tagctcccca gccaccgctg tttgtatcgc gccaagagct caggtgctca 1020 aggtgagcgt gaggtaaaaa aaatagccat ggccgataaa cagggcgaca cgcaattttc 1080 cgcttcatct aattcttcct cgcgccgtgc ctcagccgtg tccggagaag ataccaggat 1140 gtcctcggga acagtgcgtc agtctagaat gaccgcccag accaggactt acggtaagaa 1200 gacaaatctg gaatctactt gtgattcgaa ggcagtctct tattatacgc tatattaggc 1260 actttggatt catctgaaag aacgacggtt gattcccaat tcgtcgaagg ccaacctgag 1320

agctcgagtc gcgcacctct gcccgcctcc ccttctatgg ggcctctacg aagtgacgga 1380 gacaagttga gaaagccacc tataacgcgc cgaatgtcct caaaacgcca cgtacctcat 1440 aaaggccagg agttctccac agacgacgat gttcacgaga ttgaggagga tatcgccctt 1500 caagcateta ateeteaace etegeetagg ataeggeeae tgeggaaaca aageteaact 1560 ttaagacgga ggctgaacgc tcgagttaac ccattttcgt cttccggtaa tgctgattac 1620 gatgatgaag atgeeteeta tgaegaeget ggeetteeag aateaagett gggaatgaat 1680 gggaaggatt ctttccccca ggaccttgac gacgataatg atagtgaggg gagtaataat 1740 caggaggcag ataatgatga tgatgccagt gacgcggaga gcttcactct aaaggatcgc 1800 caacaggcaa taaacgagac gcatccgttc ggaatacggt tgtggaagcc agccctctac 1860 aagaaaagte gtteggtega gaagaetgea gaaggtgata tecatteate aeetggggge 1920 agggttggca ccctcttgtt cttgatgaat ctcctatgga cgttattctt cggctggtgg 1980 ctcgcaattg ccgcgttgat gggcgctagt gcttgtttca ttttttcgta ttccgccagc 2040 gcggtggaat atggcaaggc attttctgga ctttcttggt atttattcta cccttttgga 2100 teetttgtee geettgatae agatgageae taegetgagg aggaegaggg ggaaggeege 2160 agcatcagcg agtatgaaca gtggcagaac ggcgatattg aacacggcgg gctgttcttc 2220 ggaccacgtc gtaatcggtc gcttgtggga agaagaagga atagtgttga ttcggctggg 2280 gagcaagata gtctcttggg ccgtgcaccc aggggacgct ctgaagatag ctctctccgt 2340 cctaagcgcc gtttgtttgg ccgtggcgag tggacacttg ggcgcgttgt attcttcgtc 2400 tttttctact tcctggtagg accactaatg ctcttcgtct cgctcgtttg ttggttattc 2460 gtcttctgga ttcccatggg gcgcgtgacc cttatcctct ttgatcatct tcgcaggcat 2520 eccetagete tategtacea ttetgataeg aegtttaeee gaataageee ggggtetteg 2580 getteagtee teetetgeae etategtgeg geaggettga ggtattggaa gtacaeggtt 2640 ggtggcacta acgtttttct tatcaatctc ctcgcggttg ttatattcgt cgttttcgac 2700 tacttttttt tgagagaggc cctgggtctt cagatttggg tcacccatcc tggactaata 2760 tttacactcg cattgctctc cgttaatccc tttggcctat ttcatcggcc aagctgttgc 2820 gtctatatet gegeagteat caatgggeat gggtgeagee gteaatgegt tetteteeae 2880 cgttgtcgag gtctatcttt actgcgttgc tttgactgag ggcaaaggtc gacttgttga 2940

aggaagtate attggcagca tettegetgg aattttgttt etacegggtt tategatgtg 3000 etttggeget ateaaacgca aaacteaacg etteaacgte aagtetgegg gagteacate 3060 gacaatgeta ettttegetg taattgeege etteggteee actetatet accaagtata 3120 eggeagtgta agtgategea tgeteetaet agtgettgaa etaatatete eggeageacg 3180 aacteaattg teaegettgt gagagtgata tggaaceagg eageagegat tgtegtegtt 3240 getaetttte teaagtacea getataaacg atggattett eeagaaaget gtteageegt 3300 atteatgga

<210> 950 <211> 4854 <212> DNA

<213> Aspergillus nidulans

<400> 950

atgaacatga accaatgggt atcgttaata ttgaacatga gctcaacttg catacaacat 60 aaccgtgaaa aactgactat cgcttcccag ctgctcttct aaattcctcc aagtctgcat 120 ccgtccaggt ctcttcaagg cccctcgccg ttcttgagcg atggagggct aaaccgcgca 180 gatttgttga attgtgtgtc tggctgccct tcagcggagg ctctgttgta atcgcgctca 240 cccacgttct tatggcgaac cgctggacca cgctcaacct catccaggtg tgctcttctg 300 tcaagcgcgt acccgtcttt ctgagactcg aatgtgtccc aagcggggct aaatagttgc 360 ggttagtcaa aggagtacgc aagctggaag tagtgcatac aagccgtatg agccttcttt 420 cgcctcctct ggcgggttgt tggtggacat ggcaagtgtt ttggagtcag gtcttgatcg 480 attatctagg atctctaggt gagccgtact tggggcccgg tcagatactg ggtgcgtggg 540 gctctattaa gcattcctga gtggcaacag taggtgttga cgtcagcgga atgcaaaaaa 600 gcatggtttc taagagaccc attccacata atacttggac agtaatacgg gcaggaagaa 660 tatagttcta gaatatatcc agtattgttt agcttcttat tgtcaataac ggcggagtac 720 actacctact tgtactaatc ccgcgcattc ggatatcttg ggttcatcct gtaaggccat 780 catcoggcga acctaggtgt gtcgcatcaa gaaggggaga tagtcatata gtacaagatg 840 900 tctataatta tatcatatga aagaagaagt caaaggctat cctcgattgt catcccgtcc aagctccggc atattcggat taatggtctg gttcccagtt gtacctcctt cgacctgctc 960

atccaagtat gaaccaaatg cagggtttgc gtccattgca gcatctgcct cggccgccaa 1020 gtcgccctcg tcctcctcca gattaggccc ttgatatctt gagccctgtt ctgcccgcgt 1080 tatcatggca gtatccggga caaatgtatt gtaccagcct ccatcattct ggaaagccgc 1140 gttggcctcg tcgaagctga aacaatggaa atatggattc gtcagtcagt ctgagccagt 1200 acttgtggtt gggtggtttt attgctaagc gatcacatac aaacgtttat cggcactcag 1260 ggaaccggga gattctgtac tagtaactgg atttcggttt gacatttctt ttgtaagtat 1320 gattcgatag ctgttgcttt acggtatctg ctctgaaggc agacgactga gttcatttat 1380 tattagattg actgacgcaa aaaatacgta accgggaaga ccgtcgagac tggtttgcat 1440 agtttagtag tgtagtttgg cggctagcgg gtgactttac tgggtctatc tgcacttata 1500 tgaagcagct tatctgtttt cttgaatatg ttcctgaccc taggagataa caaaagcaac 1560 tacttgccat atatactgta agtatatacc gtaggttcca acagcggagt atttgttact 1620 tgcaagttac attatgcaag ccccactcta tagcaaatct tagagagtgt acggcaacag 1680 agtcagatga taatagtaat aaaatagtaa taataactca ccagctaagc ggcgagaagt 1740 agggtatttt actataaaga aaatccgctt cgctcaacag ctattgtcaa ctgcgaggtc 1800 tttggccgat ttaacccttc atattccaag cccctcgtc gagatgataa ggtattggat 1860 ggtgtcatgg tttctaacag caaggcagct gctttgatat ttatatcaag tatcaattgt 1920 aatcggaata acctcatgaa caaccctcca aacaccagtt acggggtcaa ttagattccg 1980 ggagtactgc aggaacggct gattaggact caaattccac tttgcgacgt cttcctcatt 2040 tgtcccagga ggaatcccgt ttcgcggaag aaagatcccg tatggtttta tccgtgcttc 2100 ttcgggtatt ttcaggttgg ctggggtcgg aggtggactt gaagagctcg atactgatct 2160 gctagtgctg tttattgaga ccctaccgct gttacatggg ctgccgaggc aaatcactga 2220 aggactetga gagagtgttt teggggeggt ggtageggea acegeggeea tgeetatate 2280 catttegata gacacageca tagaettage aaacgeetee teaacateca caactgeetg 2340 cgcaaaatta acgccaaaag tcctcgcata aaagccctgc acttgcggcg cccgctttag 2400 cagtgttatt gcttcgcgtc tcgtcaaggg ctctgcacat ctcagaacag caaaccagag 2460 cggaaacccg actccaatgt cgaatgtgaa gggtggctga gtcccgtctg ggcggtttga 2520 tgcgtcgagt gcgatgcgcg actgctcgac tattgtttga aaatttggca gacaggtatc 2580

tgttgtagtc ttgaagcggg agacgcaagt ggatgttata atgtagagca tttcgtggtg 2640 ggtgtaaagg agggcgattg ttttggtttg ctggggtgat aacggcgttt ctcgatgacg 2700 tagagaagtg gttagggcag taaatgctcc atgccaagtc cgcaatctcg acaatattgc 2760 catctgctgc gagatcatat ggtcggggac attgtactca tttgtggtat cgtggtgctt 2820 ttegcaeget teetggaata actgtgtete agecatgaga acaaatattg cetegeggge 2880 ggccttgagc gagggaaaga tgaaacctgg catcaagagc cggtctgtac ctcgcaacaa 2940 aacattgact getgeettgg acteggaatt ggetagtaeg etaagaegeg caaagategg 3000 aacgategte teeteeaaca atgaaceett ggttgetgga acgacacege tggetatttg 3060 ttcgcgaagc gccagagcta ggtgcgttcc ctgggaatat agcctgagtg cctcctgcgt 3120 gccaccctgc agtgcctcga tgcagataaa caagacacaa ctaatcaagc ccacgaagac 3180 gtgtgcaccg ccgcgctcga tctgctgccg aacagcagag acagaacgcg agtaccaccc 3240 taacgcatct cggtacttgt gaacagggtt ggagggctta tagctctcga ataacgagct 3300 aatagagata atggcgtccc agacggctgg ctcgctatgg catatacggg ggacaatagt 3360 actccagaat tegaegteea ggeegeeaag gateggtgeg geatgttggg agtagtatge 3420 aaatgegegg egetetegee atgetetegt tgaagttggt gatggagate gtgeeaaegt 3480 ggtctcgatg gcgctagtgg ttgcggacga tgcagacgag aatgtcccgt atgttgtgcc 3540 cgcgtactca cagtgccggc ctgtgctggt gcagcggagg caaaacggtt tctcttctcc 3600 gcatttgact cgtcgggctc tgatacagtc agtttttcac cttcttggtt tttgatgtaa 3660 gacgcacttg caggttttgc acccccgcct ggacttcagc ggcccgtacc cgacggggct 3720 tetegegete gegggggett tgategteat geegategat gttttgtgag tggeatteea 3780 ggctctgaca ataacggagc tgaagacata taattgcggc ttgacggtgg ctgatgaaga 3840 catecteagg caccaatttt etegaattet getattgtgg cagggeaggg teactaactg 3960 gcaaccgtca gactectact cacttgteet gegeateaat tetattegae taagaeggtt 4020 tattgagacc tcgatccgcc atggcccgag gacttcgtct cacacaccga gtaagctagg 4080 gcgcagaatt tgcagggata gctcgcctgc ataccggtga tgcgcaacca gtacatccat 4140 cattgacttt attcacttag agctataatg tatcaggact cagcagtctt gggatgatgt 4200

tattcgcgac ggttacgctg cttgcggacg aggcgatgta ttagcgtcct tctgaagcga 4260 atgtagaatc tacgtatcaa tggactgcaa aggtctgcca ttcccttgca ttatctgcga 4320 atatagtaag gacccagtag agctgatgca agcactattt ccccatatac actcagttta 4380 agaattgaag aagtcattag aggaacgtgg ctttgaagtt tatcccgtca gagaatcatg 4440 gtacttcagg atgacacaat agcataacgc atattaaatg gtacaaaaaag gaatagacgc 4500 taagctacag tggcaggcgc tgaggtccac gcattcgcta gtccaaaaaa aaaagatcta 4560 aaggacattc ttagctgatc tcggttcatt tgactgcgct catttggtac gtaaatgcaa 4620 tgcaacatgt ataaagggag tacacttcgt agacgctcaa aacagcgaac atgattatca 4680 atactgttat gggtaacaac cctgacccat ctatctctt aacacccggt acattagggc 4740 aggtcaagaa ccacatcctg ctgggaagac taacattaag gtcatttaac cagccacggt 4800 ttttgcgggt gctggtccga cctgttgccg ttggcctttg aacggcaact tgct 4854

<210> 951 <211> 2502

<212> DNA

<213> Aspergillus nidulans

<400> 951

gctcgagatc ttggacacgt actcgctata acacaggttc agagtttcgg cgcggttggg 60 aatatgcagc gctgcgaccg taagcaccgc agccgccagc agacttgacg ctcgccgtac 120 tgaagtgagg tcgcgatgga caaggatgat cccaccccag agcagctgat tcatggtccg 180 gctgaaatac gcaaacagtt cctccgcctc ttgaagagag atgaggcccc gcgaaaggaa 240 gteetettee agaagegteg acttgggetg etegatatga ttgtgeegea aateeegeag 300 cttcgtcacc tcatatagac tgcgcattgg cgcgggcacc aactctcggt cttgtaaatc tggtteetge gagggetege gtgteaegae eageeeeggt eegtegggtt teaeateega 420 cggcgagccg ttcatcgaat ggcggtttcc ggtgtggtat gaaggtgcgg ctggggaagg 480 accgttggga ctgtcgccaa ctgtgtatgt cgagagctct ggaagcccgt tctggcggag 540 aagatgcgac acggctgctt ggagttgctg gatagtggcc gacgctcgag ctttccacct 600 agcgcccggt gtcagtcaaa ggctgcaact cgcaaacagc actagaaagc actccaacag 660 ctcgatgacc agcccaagca ccagcacgag gaccgtcgag gaccaggcga cttacactcc 720

atogicatea acaaactici gogaaaagto attoacaaca cactiaatoo ogotgogoag 780 gcatttcgtg cagcttgttt cgcctggccg gaattcacag cgaatcttgt ggcgtttgca 840 ctccgcgcct gtaccgctcg cgaattagta gccatccgac gtcgtcgttc tctcagcgga 900 gttgggtcgc catatcccag agaaaacacc tacaagcgcg ggctttggaa atcttcagcg 960 gagtaggccg ctcatcaggg acggcagagt ggcggcggtc ctgttgccgg ccgtcaaggc 1020 cagcatcgaa ggaggaacgc ttcatgatag cggagactgg cgagatcggg gatgctccgg 1080 tatcatgcag cgtgcatagc tcgcgattcg cgacgactaa gatcggcgac gaaatgggaa 1140 teggtaatee eeegegaete getgetggte egggtgaggt ttgageaaag atteteggtg 1200 ataagagggt caaagaggag ctggggagaa cccgctacgg tagggtgggc ggcacggacg 1320 ctacagaggg tagcttcaga gttcacagcg tctacgcggc aggaatagtc tacgcaatct 1380 tegtatactc etgaaaatca tetetttetg eccagtaceg accettagat etcatteacg 1440 ggatggactc gagaggcgcg tattgtacta tgtagtcaca cgacagacgt ccaaaattgc 1500 tggggtctca gattacgcta gtcagcaaga atgagggaac accagctcaa cccacctgc 1560 tatccagctt cattgaaacc aagcgctgta acgattagcg attcgcagag ctcattctgc 1620 aggccaggcc tgttctccaa tcatcgagtg tggaggatcc ggcataagtc cggtcgcgga 1680 caggttcgga cttgatgcga atgtggaggc aatccccact atagacagga ccatagatgg 1740 gcatgtcaac cagattettt tttaagacca agacceccaa gacetgagaa aggetggtaa 1800 aaagttgctg gacattctag gtatccgtat cettecaaaa tgcatattet catcacgggt 1860 gctgcgggct tcattggcca attgcttgcg agagaactgc tcaatgaccc ttcatatact 1920 ctcgtcctga ccgatatcaa tgaaccaccg atcccagccg gcgtcaagta tcctcagaat. 1980 gcgcgcactg tcacggcgga cctcgtcaag gcggcggata cggtggtgga caaatcccta 2040 gacgccgtct atgcgttcca tggcatcatg tcatctgggt ccgaagccaa ttttgatctg 2100 ggcatgactg tcaatgtcga cgctactcgc aagctcctcg aggcccttcg tgcaacctgt 2160 cccggggtca gggtgatcta ctcttccagt caggccgtat acggtcaacc gctgcctgaa 2220 gtggtggacg atactgtcat tccgactccc cagtcatcgt acggtgcgga gaagctcatc 2280 tgcgagaccc tagttaatga atacacacga cgggggttca ttaccggctt taccctccgt 2340

ttccctacaa tctcagtccg ccccggccgt cctaccgccg ctgcctcctc tttcctctcc 2400 ggtatgatcc gagagccgtt gaatggtgaa gagtgcgtca ttcccctcga agatcggtcc 2460 ttcaagtcgt ggctctgctc gcccaagacg ctcgtccata ac 2502

- <210> 952 <211> 4167
- <212> DNA
- <213> Aspergillus nidulans
- <400> 952

60 gtctgaattt gtggccacag gaccgcaaat tcgaccacag gatcagtcta gaagatgggc tcggtgtggt tgagaaggat acgaatcaac agaaattaaa ggcatccacg acagtcgctc 120 aggegeacga ggtegttgag acageattae gettgaatgt tgeegegget atgaetgeet 180 ccccggatga tattgacatt gagaaaccgc tctatgcctt tggcagtatg tattcatctc 240 tetetateet teegteteat eteateaeag etecattege tteetgeeca gttactaaca 300 tgtagacagt tgactcgctt aaagggattg aagtccgtaa ttggattttt agcgagctgc 360 aggccgatgt atccgtgttt gaggttctta gtccgatgac cctaagccgc ctggctctca 420 agattgtttc gaagagcacg ctcgtgggcg cggagcttgc tgcagaagct gcggcggaca 480 gtgtggcgta agattttggc tataccacat ggcatgatat actaccagat gccaggtata qqatctqctt actagttggg gcctttaggt cgtctgtttg tcaccttcac attataactc taaactcggc atatagaatt tccgatttcc agatagaata tacaagacta ttgacatcac 660 ctcctatagg acgaaatcaa ggttgccaaa tgtttttagc atcattagcc atagcccaaa 720 cagtcgttta gaagcagata ggaactcgac gaaagcatga aatacctgaa agtagaatga 780 ctggcgacag tacaatgcga gcagctcctg cctgtgacgg agtaccgcca atccctccat 840 accagagett gtetgatatg ettgaaggga agceattgea gtgttttgtt tegatacetg 900 aagcacagcc atagcgaagt agatagaggg tactgcatgg gccaattatc tggcgtttga 960 tactaccggt tcaacgtgcg tcgaatcacc ggtactcaag aagcaattca atcgccagcc 1020 tctaacacaa tagtgagctt atctggacaa accattggag aaagaaggta gaatactgac 1080 tttctagctc ttataccacg ccactgcagc tcaggcaccg tatctagtcg aagagtatga 1140 cctaggaaag tgaacgatac cgcaatgcga taccaacaat actctttgtc cagcagtatg 1200

tatagctcaa gaagagagac aggaaattca ttaggactga cattcaactc ctccaggtta 1260 tgtttgggtt agggccaaag cactcatacg cagagtatct ttggagctat acagggagca 1320 cccgtatgcc tgcaggtgct gggccacgat tcaccaagga caatatattg ggcctgttat 1380 gcacgataga tgaggcaatg ggatgaggga tgcctcatat ggcgtactgt aaaatttata 1440 agtgactttc gtctacggtt catactctga gtacatatca cactacaacc gagccttcgc 1500 cgctgattcc tttaactgct gcttcaacac ccgcctcaga attttcccgc tcggactctt 1560 tgggatattc tctaccacat atatgcctcc tcgcaaccgc ttatggttcg caaccctagc 1620 gttgaaccag agatgaatat cttcaatgac ctttcctact cccctcatcg tcaataccct 1680 geogeagegt aacaaacgca gteggcaact etgtegeeet tgegteeace cagacteeaa 1740 taacagcgac gtctaccaca tccggatgat caacaagctt accctccagc tcgctcggga 1800 tgacctgtaa gcccttgtac ttgatcatct ccttgatccg atcctgtatg gtaatatatc 1860 cctcagcgtc aataacgcca atatcgcccg tacgaaacca cgaaactcca tcgtcatcca 1920 cgtggaacgc accectegtt geeteeaagt tattatagta teeeggtgta acatteggte 1980 cacgacacca gatctcgccg ggttggctgg ctccatcctt gcccacgtcc gcgtcgagca 2040 tegteteegg atcaaegaaa egaaaeteea tatttggeae aatacaaeet aegeeggeae 2100 ctctcttgtc cattcgatca ttcgggattc cagttgcgat tggcgaggtc tcggtaagtc 2160 cccacgactg cgtgcagaag acctccgttc caaagatatc cttaaatcgg gtctcaagcg 2220 ccgacgagag ctcgattgtc agcggtgcgg cggcggagag aatccgccgt acgctgcgca 2280 gattgtaatt geggattega teateettga eeageatgag tgegattgga ggeaegageg 2340 ccagctcctg cggcttgtat ttctcaacgc acgagaggta cgtgtcaaga tcgaaacgcg 2400 ggaggatcac cacaggcgtg ccccacgtta gacactggca catgtataaa ttcagcccat 2460 aaatgtgact gaaggggagg aaggcaatcg cggcggtgcg gtcgacccgc tgagctgcgg 2520 agcctgagtc gaggagttgg gcgcgccatt gttgaaggtt cgatgtaata tttcggtggg 2580 tggtgatcac gcctttcgct ggcccggatg tgcccgagga gaagcagatg aatgcgattc 2640 gcgacccggc ttcgtgagca gggatttggc ggagtgcggt gggggcatag gtgctcgcta 2700 attgctggca ggtgaggtgg ccgggtgcag atgattggcc gtcgaggacg atgactttct 2760 caatcgaggt gccctttgct gctgctcttg cagtagaaag aagcgacgag tgggcgatga 2820

tgaatcgtgc ccgactggtc ttcagctgag cgtgtagttc ctgagccgta agtgccgcgc 2880 tagtaggggc cacaacggcc agggacccga tgatagcgtg gcaggcaatg ggatagtcga 2940 tegtattagg getgaacaga gegaegaeat egtgtteeet gagaeegaat agetgttgea 3000 gcccgttcgc cagggaccgc gtgcgttgga tgacatcccc gtacgtgtac tgttctccqc 3060 tgagggcatc gatatacatg ggacgggaaa ggggagtatc gaacgggttc gagaagacct 3120 tggagaccag gtcgaccgac tcgatctcaa ggttggggaa aggtgatcgg tagattttct 3180 ggctcatgtt cctctttgtt tggggcactg aactggcgta ttcaagctcc tttctttgat 3240 ttcctgaacc aaatatcaag agtcacttcc cactattaga agatagagaa gattggtcac 3300 gatctgagag tgagctctct gtataacgca ggtcaagata gcacgcgata tgagattgcg 3360 tagggttcaa teetaacaeg tgattgetgg gtagatggaa egttegaaaa aacagatgea 3420 ttaattgcga tgatagaaga cgatacggtg gttaggcgtt cttatatacc tttccatttt 3480 ctagctttgt ctgaaccccg ccaaggattg ggtttcgttg gacatgcgaa tgatattatg 3540 cccctggggt tctagtgaga tattcgtgct ctcagcaatc caccccaaga cctgccgacc 3600 cgcggtttaa cctgccctac cggttctgga aatctaagtg ccacgatcgt agtaccatac 3660 ccgaatttga cttgcactaa tgcatatttc tccacgcctt tatgatgtgc gccaggcatc 3720 atgtgattgt ccctaccgtg tgaatgggct tcttcctgtt cgtctgttat tttctttaag 3780 atcoatgete tgeggtgtta tgetgggetg tteetgaetg eeeetggetg gttttagatt 3840 gtcctcatat cgccccgggg atcattgttg tcgtcctgtt atgtccttgt gaaggcacca 3900 aggcacctct tgagtgggtc ttaataacag ccatgtatgg atgttacgta gtttggctta 3960 caacggcacc atacagggaa ccggctaccg actggatagc cgattgagta aacgcgatat 4020 atgtctaaag cctggctgat gtgagtggat cctgggtcgg gccgagggtt agcttatccc 4080 tacgcatttt tgaccccgcg gggatttctt gttcggtttc aattatggca gttctgccat 4140 taacttgggc cgcggttttg gcgacat 4167

<210> 953 <211> 3762 <212> DNA <213> Aspergillus nidulans

<400> 953

60 gcagcatctt gcattcggcg gcgatttcga tcccaacggc gcctgttcca ctatcattag atccaatccg gattgccttg gaaatgagac agagatgaag gacataccac ccccaataac agcaactccc ttttccgcac ctcgaatatt cgctagattc tccgccgtct cagcgagata 240 cgtctcccgc gtgagcgagc gcggagcact tggaaactcg cgacgcagtc cagtgcaggc aatcaggtaa tcatatttct cttggacggc accgctttca gtcgcaattg tggctgtctt 300 tgccgtgcag tctaaggagt cgatgctccc ctgtacgcag cgaatttcgg gggtctggag ggcggggata tcggtgtatt tgatccaaaa ggacttggca aattcttggg aagagagcgc gaggggttgg ccgattaggt ggtctatatt gattaagcat ttgatcaggt agaaggtagg 480 gtttacaggg cgtacagtag ccatcacggg gatcaactat ggtcacctgc acggggattc tcttcccggt gccgttgtcc ccttcagtaa tagagaagcg gtgccgtcta ccgtggcaaa ggtcgactag gttcagggcc gctgcgaggc cggcataaga gccgcccggg atgaagacct 720 tgaagggttg ggcttgctcg aagctagaca tctccgctgg tcaatttagt tcagtctaat ctcgactcaa ctagattcct aacagagaga gaggaggagc aaagtatgaa agagggaaac caagagatgg atgcgagtaa cagggggaga gcgacagtcc agacttaaag ccatgtgtgg actgagtcgg ctcaaaacgg atgttatcaa tctaacggac ccgcttgtat cgcagttacg ctggtcgtac aaggattact taccggtaca gggacttaac cgcaaagccg cgacctggag tttgaggagc ctgactcttt aagctctctg gcgtttggcc tgtagttgac acattgcggt 1020 agetttggtg aacatategg categttgea gattggeece ggteetaggt gtetggtgae 1080 gtggggtttg caagaggctt aacggtcgag tctggggttg gagtaacaga ttcttccaga 1140 agtagcgagc caaatgtcgt ggtctgactc ggtactgaac gactggtaac cgagacgtaa 1200 gcatcttgat ttcgtggtgt taaaggagtc ggtgaccatc tgtcttgggt gcagctgtaa 1260 tagaagtetg ageetgggga ceacecetat ttgatggaag cetgaegtte gaetaegteg 1320 tatgtctcca ctcttctttc agctcaatgg cagggtctga cagcctgcgg gcatcggaag 1380 aaggetgtag agateaegat aggetgttga accatgaege agaetaegeg tetgaggaea 1440 cgaatgaccg gaatagttcc cggcaatgca gtccaagctc cacatcactg aatgcttctc 1500 acatetteet atggetattt tatttatttg tettegteet eatactgetg gaacttgtag 1560 ataccagggg tgaacggaag ctatctctag actggcagga atgcaagaca aacagccccc 1620

gttattgagg cgcaagcaga catgccgaga aaccggaaat tacccctaca aatgtgacca 1680 ggcgccaaga tetgtaaaaa gagttttegt geagtegtgg etttetgtee teeeettega 1740 tcctggttgg ggaccgagga gtggggtcgt cagattatca gattgataaa gtccggtacc 1800 ggatggctta aaaaattaca gatcagataa cacggatcag ataagatgcc atgccccctt 1860 gettgeaggg ttaacceagt tttaagttet etteteeact tategagtag aataatatge 1920 ctacattgca ttctgcatac taccaagcta ggaaaaaaga atgtgggagc gcgagacaag 1980 tgctataaat ggcgccttta tggtggtttt atactgcaac aggaaagacg ggcgtcaggc 2040 ctgccgtcgg gcgcaacact aagtcctagc cctaggtcta gacatacatg tatcttgata 2100 gcccgaaggc ttgttgcttc tatacttgca cactagagaa gtgctcgatg ttatggactg 2160 ccctaacact gtgcagcatt aaattgaccg gatcgtggat tcgtggccaa gcagatatct 2220 acgcagtcta ccatgcagca tctaaagcct tacctattga tcataaagaa aagaggaaga 2280 gtagatagat tatgacgagt ccctggatgc gcaaaatggt cttttgttcg cgaaaaccgt 2340 cggcttgatg gtgcttagcc attcgcctcg cactctgttc tccagagagc atttgcgctt 2400 cttcaacctc atcgtctgtt aggcgttgag gcaaaatatg acagagaaac aaccagcggt 2460 tgcgaaacaa tagagtgacg acagcgagat cgaccagagg cttttcaaga catggagcta 2520 ttacgagcat cccacttgtg gcgatcggcg ggtagaatac acgaggcaag tgccccatat 2580 cgtaaacgga aagagggaaa aggtggatat tgatatcact aaggaaattc caagctgtaa 2640 tttcaccgaa aagaagtggt caaggtttgt gcagaaacag acgatgacac acatggtgct 2700 tgaattagaa ggtaaagctc aaggactgga agagctggtc tctttgtctg agtaggttgt 2760 gttccggtgt tcgtaagctt aagctggagt ctgcttggac tcatgtctat ttgtttccat 2820 tgtacttcat gtattgtccc taaatagaga gagatttcca tacacaacat ttgaagagcc 2880 ccaataacat tacctcccct gtcgccagaa taatacactt tctaaaactc ctccttaaac 2940 ctaaagggga caaatteett gacaacattg ctatactete cettaaacte agtetgegga 3000 accttccagc gcgcaaccat gccctccta gccctagaga cagtagtgtt cgcagccgaa 3060 gacaaaacaa caatctccga gttctccaag tgccggtcac acgtacctcc aggcaccagc 3120 gcatcgcccg ctttgtcctg gatgtagctg tattggttca aaatagccgt gtactgttcc 3180 tgaacaccag ggaatccgcc agggacattc ttatcgtata ctgcaacgac ggtgttctgc 3240

gccacgtttt tggcttgctt gttggggccg aatttttccg ggacctagag gtcccctttt 3300
aaagggaaaa ggaaaccccc tacttttta aaaaaaggaa aaaattttt ttcccctttc 3360
cgcaaaaaagg ggttttctt ccccgaaggg ggccccccc tcttttattt tttccaccgt 3420
tttgttacct cccacacggc gggcggttg tggaaaaaaa aaaacttttt tcggcggtaa 3480
aaaaaaaaaa aatcctttt gaaaaagtat actcccccc ccgaggaggg agggccccc 3540
aggccacatc acttttttt tttttttgg ggggggggg ggggggggg gggaaaaaat 3600
ctttcctccc gttttataac ggggtaatt ttttggcctt ttatctctt tcttgggggg 3660
aagggggcgc ccaaaatggg ccctttttgt ggggggaaaa ccctatttta ctaataaatc 3720
ttttccccgc aatgggtgat accggaaata tcccgattgc aa 3762

- <210> 954 <211> 2033 <212> DNA
- <213> Aspergillus nidulans
- <223> unsure at all n locations

<400> 954

ggatctagaa acgttaacgg agttctcttt gtagaacaac ggccgaccgt tgttgccgat 60 taggagatgc caagttttga agcattggcc caccataaac tggggttatg gcggtattta ggggcggtcc ccgcctaata tgcccaccat acggtccgtt ttgagactgt gatgttcctg 180 agtttgcctg ctgcaacggc ggggcccgga ttgtcttcag cgggtcatgt tcttccggcc agcagagate etttgaaagg gteateggae teeteaaage ttteateaga etttaggaet 300 gtaccatcta tagaggcaaa tgcnttcagt ttcttccaag aaagcattcc accaaaattg 360 tcgtgcggac gaaggtgagg tagctgcagt gcacttggcg agatggccgt agcaaaatca 420 tegteceagt tateetette teeggageta ggagaactaa atttgteege gacaattetg 480 gagactgggc ttggaagtgt aactttagtt ggcgtatgcc gcgtgtcaag ccgtaaagac 540 600 ggtgggtttt gattttcatt tctggttcct cttcttaggg cattcgattc cggcgaacgc aaagcctcat tecactectg gacactttte accgcctctt catatteggt tgatttttta 660 gggactacgg agtcagatct tcgagcgttg acgatccatg ggtgtttcag aagtttgcga gcggacacac gaaggttggg atctttctga aaacactgca tcaagaaatc tttgactgcc 780 tgatcattca ttagccatcc cgtacagaag cagggccatg aggcaaactc actggtgagg 840

cgccttgagg gaggggaggg tgatcgtcat tgacaatccg gaaaagagcc ggcatcggct 900 gaaggttata gtacggcggt tttccttcaa gcagctcaat gacagtacat cccagactcc 960 atatatcaga cgctgtagtt gcacctgata attcaatcac ttcaggggcc atccagtatg 1020 gagteeegae aaegetegat tegettagte eggtggtaeg aetggeeaea eegaagtetg 1080 caagettgac aaggeeetet ttegttgtaa gaatatttge accettaata tetetgtgta 1140 tgacgccctg atcgtgaagg taaagaagac catggagaac ttgggacata tataccccca 1200 ctaaagtttc cggaaagcgg ccgaagtttt tggcaattga gtgtagagaa ccattttcgc 1260 agaatgatgt ttaacgtttc ggccgacttc acgaacccct ggtacttcac gatattcggg 1380 tgctattgtc aattgagtca gtagatgtcg cagctatagg ggccactggt cccaagcagg 1440 cagtgtcata catccaaatt cttcaggagg tcaatctcca gctgtagcat gtattgttag 1500 cacgtaaagc aagcgaagtt gtaggcaaac ataccatgat gacccgcaat tcactcttgg 1560 ggagatcagc gagcttgatc tgtttgaccg ctacagtttc cccggtattc cagttcagtg 1620 ccctatacac tgacccaaag gcaccacgac ccaagcaatc acccaattgc ttcaaagatc 1680 acceptcagtt tegacaaceg ggatgacagt geggggaceg ggeatacata gteettgage 1740 teegeaacat etttegeega egtettteee ateetgteat ettttgettt gtegtetegt 1800 tttgatggac tggaaccgag tctcgtgagg cgtccttttg cgggtgcgcc gggcgttcta 1860 gacgccggat gaggcgcttc tgggccctcg ttggaccgag ataccatgac tgatcacggt 1920 tagagatggt acttatgagc aaggctcgat tcggacttga aacgtcggct tggaatgtac 1980 aatcttgagc acggtgggaa gaggaaaagg caggtgccgg gaatcggtcg gat 2033

<210> 955

<211> 3512

<212> DNA

<213> Aspergillus nidulans

<223> unsure at all n locations

<400> 955

ttgttgaaag atagcacaag gatgagcctg cactgcttca acggcaggaa gagccggtaa 60 cacagtctcg cttagccgct ttattcccat cattcactgg gagaagacgc tctgttgttc 120

ttcctccggg tgtcaaggag cccggatggt ggatcaaaga cacaggacca gtccgtgttg aaactaaggt ttggcttgca aatcaacgaa cttttatcaa atggcttcat gttagcattt 300 tactttcctc tctttctctc ggtttgtata atgccgcagg caagcacaac gatatagcgc gcgcactgtc tattgtctac accgcatttg ccatttttgc ggcaacctgg ggatggtaca tgtacgagaa gcgcgcaaga cttattcgag cacgaagcgg gcgcgatctc gacaacacat 420 ttgggcctat catcgtgtgt attggattgg cagttgcatt gatcctaaac ttcgctttca aggtacttac cttctctgat actgatccag cagaagctga catgactagt acgcctccac 540 600 cgttgagaag ttgcgcagaa cacggccagt cgatatgact accgttgagg gttctttttc aatggccgcg aacccggaaa tctgggatct tccggaccaa cagcctttaa attgacgcaa 660 ctcgtggtcc ttgcgatacc acactcatga gaatgcgtct ttgattacat cgtttacggc gttgcatcga ttacggcgct gatgaattct cacgaagccg gccaacagcc catatgttct 780 cggcgcgttg ttgttctcat aggtagatag ttcaatttct gtctttttta gtgtataatg cctcagcccg agaatcatga atgtgctcta ttcacataac cacatatgta tatttgctac acggaaagat tagtacaaga tctcctgctc tttactgact ttctattagc ttacaaagca caaagcatgt gttggtggta agtatcttgt tcatcagact tctgcaatat ggaaatcaag 1020 cgatgagttc acaacggccc agcgaactcc agtggtcatt acggaggatg tctccggcgt 1080 cagtcatgct gacaaatcca gaagtacatc atggagccct caagaactat attatacctc 1140 cgatctacag agtataaata tatagactcc ccaccgcgct tccaaatcaa ctccaatgca 1200 tatatcatac cataaatttt gaacaatcca ctccagatcg gtccagaatg acaaacttca 1260 acatccacat catttccgac agcgtctgtc cggtatgtcc cgttcgaata atccccccca 1320 aatctcccag ttaatccgaa actaaattcc tcaaaaccag tggtgctacg tcggctaccg 1380 ccgcctctcg cgcgctataa ctacacataa actcaccaac ccgctggaca cgttcaccat 1440 cacttggtcc ccattctacc tgaacgcgtc ttccccaggt tatcccggtg tgaataagcg 1500 gcagttctac gagaacaagt tcggggcagc ccgaacgggc gcgatctttg agcgccttgc 1560 tgcagtaggc gaaggcgagg gaattaagtt tagtttcggc ggacagacgg ggaagacgag 1620 ggactcgcat cgggttatct ggttggctgg gaagaaagag agagagcaaa gggaaaaggg 1680 cgaaggggtt gcagggaaaa ttgagaacgg tgtgataggg ggcctgcaga ccagggttgt 1740

ggaacggcta tttcgggcat actttgagga ggaaaagaat attactgagc gtgcggtgtt 1800 ggttgaggct gcagttggag ggggtttgga caagagtgag gtggaggggt tcttggattc 1860 ggatgttgga ggggtggaag ttgataggga cgctgagggg gcaagaagac agtttgtgac 1920 gggcgtgccg tatttcatgg tgcagggaca gtatgcgatc gagggagcgg acgagccgga 1980 gactttcttg gaggtatttg ggaagataaa ggccgacggg caatgaatga tctgtatgac 2040 atgtagetea gtttgegaag ggeatgetga agaacaattg aettgatgtt aactaatget 2100 aaggctagct accttccaca tcgcaattgg ataaacaagc tggacaccat aacaacccac 2160 aagccgatcc aagatagaag cattgctgca gacgccggtg gcatgcaaaa ttctaggaat 2220 acatggaata gaagtagaac gctggtgaaa acggagacag aacaagccat ccagcgccta 2280 agcagttgag acacgttaag gaaaggtaaa atcgaacaat accaccataa ctcatagcgt 2340 ategtgetaa agtagagatg teteaagaga tgegetgegt gtaagtetaa caactaacag 2400 cccttaccca tagcttgctt tactgctgcg tcgtctgttg gagttggaag tcagggatat 2460 actcgaacgt gtctttctct ggactgtagc ggtacgcctt aaactccacg ccgtaaggct 2520 tcggctccag catgtacaac atccccaaag gtacgtctag atcggcgact tcgtcacgtt 2580 tcagaccgcg gaagtaagcc aggagaacgc gcgccacaga gcgatgagta actaggagca 2640 catggtcggt catccgctcc acttcgatga taacggttcg aagtcgattg atgacgtcca 2700 agtaccette gecacegggg ceaggatage ggtaatagag ettattette ttgegegttg 2760 catattcgtc gggaaatctc tcgcgaatct gttcgtacgt caaaccctcc atttcgcctg 2820 cgtaaagttc gtcgagcatc ttcatctgct tgacatcgta gtcgtcttcg ttgaaatgtt 2880 cgacagtttg cactgtgcgt tgcatcatgg agctccagac acagaaattg cgaggtcggt 2940 cccggggtat gtacgagggg ttntggatgt nnnntttnnt ttgttttntt ttttntttt 3000 gttttttttt gactttgtgt tgttataatt attttttatg ttttttgtg taatattgtt 3060 atattttagt gttttattat tgttttagtg gtgttcttct agtttgttta tatatttgtc 3120 gtagttetge ttetgtetat etgttatteg egtaaettea atgeeategg tetataetgt 3180 gccattatca tattgctcct tatcagtgca attctgtctt cgtaaaggtt gaattatata 3240 ttgctagtgc ttactgtcca ggtactctat cgatttattt agaaatcact gaagaatgct 3300 ggtagaagat tcgatcagta ctagtcattg ttctgatgtc aacatatttc ttatccgtca 3360

tcgtctgtat	attaagcgaa	cgctacgtag	tatgagctca	caatgttatc	atatgagttt	3420
taccattatt	tccctttgtt	ttctattttg	ttgcgtctct	gcgcccttgt	atctatggag	3480
gccattccta	tttaaaattt	tcatgtccat	cg		•	3512
<210> <211> <212> <213>	956 843 DNA Aspergillus	s nidulans				
<400>	956					
tcagggtatt	aaataatggt	agatgtgaag	agaatcgaag	aaaaaccaat	ttcccgagac	60
gcgcctcaga	gatagagaag	tactgctttg	tattgataaa	atactagcag	tcggatgcgc	120
aaggatgagg	cgacgggaac	gtaaagtata	ccaatcggtc	acttgcacgt	cgcagccatg	180
gaggtcagtc	aagcagagga	taaggtaaat	aaataggtaa	gaggcagcgc	aagataattc	240
aaagatgagt	ggagataaag	acgttgagaa	gctttaaggc	tgagcaccag	cccatcgatc	300
tggagtatac	caagaattac	actgaaaggc	tgctgtaagg	taaattacca	gaaggtatag	360
gcaagatcgg	agaacgaagc	aggaagtgtc	aagaaaataa	gtggagaatg	atgaaataga	420
acaagaccac	cgtgatcaaa	tttcactgct	ggaggtgact	cagacgcgga	tgaaaagcgt	480
ggtgtactgt	actgcaatgg	caccggggcc	gggttgaggt	tcaagtaaac	agggcagcac	540
ggcttcagag	cggcgtcagg	atggttttgg	tctgcggacg	gtcgaggtca	cgcagcctgt	600
ttatatcatt	gggacatctt	tggctgggcg	cgcctaccca	tgcttgggcc	aggtgtgcta	660
gtcccattta	agattagctg	ggtccacctt	tgcgaaaggt	tttctttgat	cacgtgagct	720
gcgaatactc	cgccaagaaa	ctgccagatg	gcctcaagta	agcttaaagg	tagattaagt	780
aaggcagatc	tctttgacgg	cagcataagc	catgctagct	atcggttgct	tcatatgctg	840
tgt						843
<210> <211> <212> <213>	957 3251 DNA Aspergillus	nidulans				
<400>	957					
attgtcagtt	catgtatcat	acacatacga	tttaggtgac	actatagaat	actaggatct	60

aggetgtatt tgtegetgae gagaacetee eegggeatte tecateegtg cetttegtag atgacttcaa ctagccgcgt caaaatgtcg gcctgccatg tcacaagaag ctcgccgcta atagctttca tatgacgctt gagtagcgtt acgtcgaagg tgagtcggag actatcagag 240 300 catagttgct tcaccttgcc ttcaagcagc ttattcgaaa gcgttaattc tctcagggct 360 gcacagtate tetgecagat gatgegttag tttgegeete tegeceagge aacgaacagt teegtacate tacegtttga catacegtga gaacgactte geeteetage etettttgee tttgagccgc tttgatctgc gcacgataga aggacatccc tggaccatac ttctggatga ggtcctcatc catgacagtg acttcaaggc gacaagggca atgcgagtga cagttcagaa 540 atgagcgcgc ttcaatgata agagaataac tgcgttcagt aaggtatgat gacggttcta gtcttgaaca actggccgcc gtgatgttgc aagcctacgc tggaaagaaa gagcgagtgg cactcatcgt ggtcgaattt ggaaagggca agccaacatc tgagattact ttccagaatt 720 780 gagatccaag ctgattgatt ctccgcgagt attacagata gataatgtcc atcagaagct tegtetetag agettaette cegaaggett eccaaactet atgaccagtt teccaaactg 840 tttactatct ttcatatcct ggaacagtcc atccagggcg gcaacatcgc tcaattcggc ctgcacgacg cgcgatacca ccgggcgtac tttgtgcgtc ttgacaaatt cgaccatgtc 960 cttgaattet ticegagaac ceattgiega geegeggaca teaatattet tiaacaegge 1020 ctgcatcaag aatggcatca cgggagagac tgtcattcca tagatggaga ggacaccgcc 1080 agcctgtgat gtgttagccc gcacagataa caaaagagac attaagaggc ttcagacctt 1140 gagcagtttg acagacttct cgacggagtt accacccgct ccgtcgataa cggcgtcaaa 1200 gttettettt eeettaggaa geaggeegag eaacttette teeeageeat etteettata 1260 gttcacaccc cccttggcac cgagctcgat agatttgcgg attttctcct cgctagagct 1320 ggtaacatac acgtcggcac ctcgcgcaac agcaaaaagc aagctaatta gcgccacacc 1380 teegeegata cetgtgatea gaacggeage geetttgeeg gtattgetet egeetgeett 1440 taccactagg gecetecate etgteagtee tgecaggggt agggeggetg ettetgegte 1500 tgacaaatgc tccggggctt cttcgacctc tgactcgtcg atcgtaatat agtcttgcaa 1560 tgtaccettg tegtagaaet tggtteetee catgatttta tageetgtgg gateeteegg 1620 gccttcaaga gagtccttcc agcctattcc aggattcaaa atgactcgct tcccttgcca 1680

tegttetgga titgttaegt cagggeetge geceaegaeg giteegaeee egtetgegee 1740 cataggtacg tcaaacgtca gtccggggta gaggtgctgg cgcagaaaca catcgcgatg 1800 gttgagagct gctgcggaca acttcaccag cagctcggtg cctttagggg tgggttgggg 1860 taaggtettt agtgegageg gataatagae etteecagge ttgeeeteag etttgeegag 1920 gaatattgcc ttcgacattg tgatatcgtt gtgtcttgag aagactgtgt atagaataat 1980 geggtttgeg agtteaatgg gegatttgag tagatgttgg atttaaagat cacatcatce 2040 aaaataccgt gcggggatat ctggcgttat cgataaccga ggctgtccgg cctcaatact 2100 gatcacaaga ggacatgttc cccgttatca gtcacacttt atatgaacag catgctgcaa 2160 ataactatgt acaacatgtt catccaaccg ggacctgtct agacactata gtgcgcggac 2220 attegttgga ttegtatetg aettgeegga acaaetgeet eggtttgeea eteacaaace 2280 tccactatgc tatacgcaag ccaaatcata caccaggttt agaataatag atacgcatgg 2340 gtgagaaacg agtgatcatc cacatcagaa gctgggacaa tagcattgag gctcacaata 2400 gegetttgat tggcaccace gegagteeet eggtggatga taacaggatg ettggetata 2460 tcgatcgctc ctcgaggaga accgtctcgg cgaagcacta tagtcatata cgtgccgata 2520 gcggtgagta tgttcgcagt aggtataatg ttgátccgaa tagtagccac atggctcagg 2580 ttcgcaaaaa ttggtacgta cttcgcggat atattcgcct cgtttatacc cggagcgaag 2640 ggacttgcca ttccaatacc aggaataagg gacgtccttg ctgacagttg tctttcgaga 2700 gcagaaaaac gacatggtat cgtgtgagtg atggacagaa gtttgccaac cgagtcgagc 2760 aggagagttt caataagatt gattaagcac ctcaaggctt gactctgttg acttgtccag 2820 tatttattcc gtttggtctc ggggtctgtc gagacgcatt atccttgctg acattcatga 2880 cacattgtct gtcatacagc aaacacggat aagcaacatt cagatagttc ggtgctcact 2940 ctgtgtgacg atggaatgaa tacgttagaa gcctgcaaaa ctgcacagag tgcaggaaca 3000 tagttgcccg gcagcagcaa gttgcccgga cagaaataga gtagaccttc cacttgttcc 3060 ataggaagcc acccatcgag cacttgatgt tttagagagg ctggcctacg cctttctgct 3120 gtacgcactt ctcccgtaag ggatgccaag gtggtcttga tcgctgccag tcagagtcca 3180 ctgtctagac tcagagaacc atagatcatc tgcaacgcaa cgctgaccgc agtatgaacg 3240 3251 cagggcaatg a